

5
553.28
Olr
1979

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

Oil and Gas Conservation Division

Thomas L. Judge, Governor



ANNUAL REVIEW FOR THE YEAR 1979

Relating to

OIL AND GAS

Volume 23

BOARD OF OIL AND GAS CONSERVATION

R. A. CAMPBELL, Chairman
1222 North 27th Street
Billings, Montana 59101

C. J. IVERSON, Vice-Chairman
P.O. Box 830
Shelby, Montana 59474

PAUL C. BUNN
P.O. Box 1111
Havre, Montana 59501

JOHN P. MOORE
P.O. Box 997
Cut Bank, Montana 59427

JOHN M. SHEEHY
P.O. Box 296
Big Sandy, Montana 59520

WILLIAM W. BALLARD
P.O. Box 20174
Billings, Montana 59104

THOMAS A. OVERTURE
2401 Montana Avenue
Billings, Montana 59101

Montana State Library



3 0864 1005 9746 0

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

Oil and Gas Conservation Division

Thomas L. Judge, Governor



STATE DOCUMENTS COLLECTION

SEP 11 1980

MONTANA STATE LIBRARY
930 E Lyndale Ave.
Helena, Montana 59601

ANNUAL REVIEW FOR THE YEAR 1979

Relating to

OIL AND GAS

Volume 23

BOARD OF OIL AND GAS CONSERVATION

R. A. CAMPBELL, Chairman
1222 North 27th Street
Billings, Montana 59101

C. J. IVERSON, Vice-Chairman
P.O. Box 830
Shelby, Montana 59474

PAUL C. BUNN
P.O. Box 1111
Havre, Montana 59501

JOHN P. MOORE
P.O. Box 997
Cut Bank, Montana 59427

JOHN M. SHEEHY
P.O. Box 296
Big Sandy, Montana 59520

WILLIAM W. BALLARD
P.O. Box 20174
Billings, Montana 59104

THOMAS A. OVERTURF
2401 Montana Avenue
Billings, Montana 59101

1979
SUMMARY OF YEAR ACTIVITIES

Oil Produced 29,957,099 Bbls.

Oil Imported (Refined)

Canada	- 23,578,113	
North Dakota	- 6,112	41,951,872 Bbls.
Wyoming	- <u>18,367,627</u>	

Oil Exported (Transporters) 21,047,022 Bbls.

Gas Withdrawals

Natural	- 50,691,868	53,887,829 Mcf.
Associated	- <u>3,195,961</u>	

Averages (365 days)

Oil Produced	82,074 Bbls.
Oil Imported	114,937 Bbls.
Oil Exported	57,663 Bbls.
Natural Gas	147,638 Mcf.



Board of Oil and Gas Conservation of the State of Montana

Thomas L. Judge, Governor

ADMINISTRATORS

JUDSON D. SWEET, ADMINISTRATOR/P.E.

2535 ST. JOHN'S AVENUE
BILLINGS, MONTANA 59102

CHARLES G. MAIO, PETROLEUM GEOLOGIST

2535 ST. JOHN'S AVENUE
BILLINGS, MONTANA 59102

DEE RICKMAN, EXECUTIVE SECRETARY

P.O. BOX 217
HELENA, MONTANA 59601

DONALD A. GARRITY, ATTORNEY

1400 11TH AVENUE
HELENA, MONTANA 59601

BOARD MEMBERS

R.A. CAMPBELL, CHAIRMAN

1222 NORTH 27TH STREET
BILLINGS, MONTANA 59101

JOHN M. SHEEHY

P.O. BOX 296
BIG SANDY, MONTANA 59520

C. J. IVERSON, VICE-CHAIRMAN

P.O. BOX 830
SHELBY, MONTANA 59474

WILLIAM W. BALLARD

P.O. BOX 20174
BILLINGS, MONTANA 59104

PAUL C. BUNN

P.O. BOX 1111
HAVRE, MONTANA 59501

THOMAS A. OVERTURF

2401 MONTANA AVENUE
BILLINGS, MONTANA 59101

JOHN P. MOORE

P.O. BOX 997
CUT BANK, MONTANA 59427

Administrative Office25 South Ewing, Helena, Montana 59601

Technical Office and Southern District Field Office . . . 2535 St. John's Ave., Billings, Montana 59102

Northern District Field Office218 Main Street, Shelby, Montana 59474

Annual Review for the Year 1979 Volume 23

ACTIVITY REVIEW — MONTANA 1979

The production of natural gas in Montana was up from 47.1 billion cubic feet in 1978 to 53.9 billion cubic feet in 1979. This substantial increase of 6.8 billion cubic feet is mainly due to new well production and the placing of shut-in wells on stream as facilities become available. Marketed associated gas in 1979, which is included in the total shown above, also increased over last year's production by 671 million cubic feet, reflecting industry's increasing success in conserving all possible marketable gas.

Total oil production for 1979 was down by approximately 510,000 barrels at 30 million barrels as compared to 30.5 million barrels for 1978. The oil production from the Williston Basin of eastern Montana, however, has been steadily increasing since 1975. The success and increase of exploratory and development drilling for oil from pay zones in the deeper Paleozoic reservoirs of the Williston Basin continues and 1979's oil production from this area is up by 1.4 million barrels over last year.

There were 803 wells drilled in Montana in 1979, 10 more than in 1978. Although the number of development wells drilled was down by 41, exploratory wells drilled increased by 51 wells. A total of 537 development wells resulted in 235 gas and 120 oil completions. The 266 wildcats drilled included 8 gas and 15 oil new field discoveries and 31 new pay or significant field extensions.

Montana's future as a major oil and gas producing state is very good. The potential of major oil and gas reserves along the Overthrust Belt of western Montana continues to attract leasing, expanding exploration and some drilling activity. As in the past, exploratory and development drilling can be expected to continue to test the shallow gas reservoirs of northwestern and northcentral Montana, and the success in which oil is being found in the deeper carbonate reservoirs in the Williston Basin of eastern Montana will continue to stimulate drilling in that area.

The Board of Oil & Gas Conservation was designated by HB-130 as the Montana jurisdictional agency to administer the federal Natural Gas Policy Act of 1978 for state and fee lands. During 1979, the first year the Act was in effect, the Board's Administrator and Geologist processed and made determinations on 328 NGPA applications. A summary of Docket determinations is as follows: 297 qualified, 13 not qualified, 5 rejected, 5 withdrawn, 5 pending-additional documents, 3 deferred until additional monthly production is available. Of the 328 NGPS (FERC) applications submitted, 144 were for stripper well (Category 108) qualification; 96 for new natural gas (Category 102) qualification; and 88 for new onshore well (Category 103) qualification.



Digitized by the Internet Archive
in 2013

<http://archive.org/details/annualreviewfory1979mont>

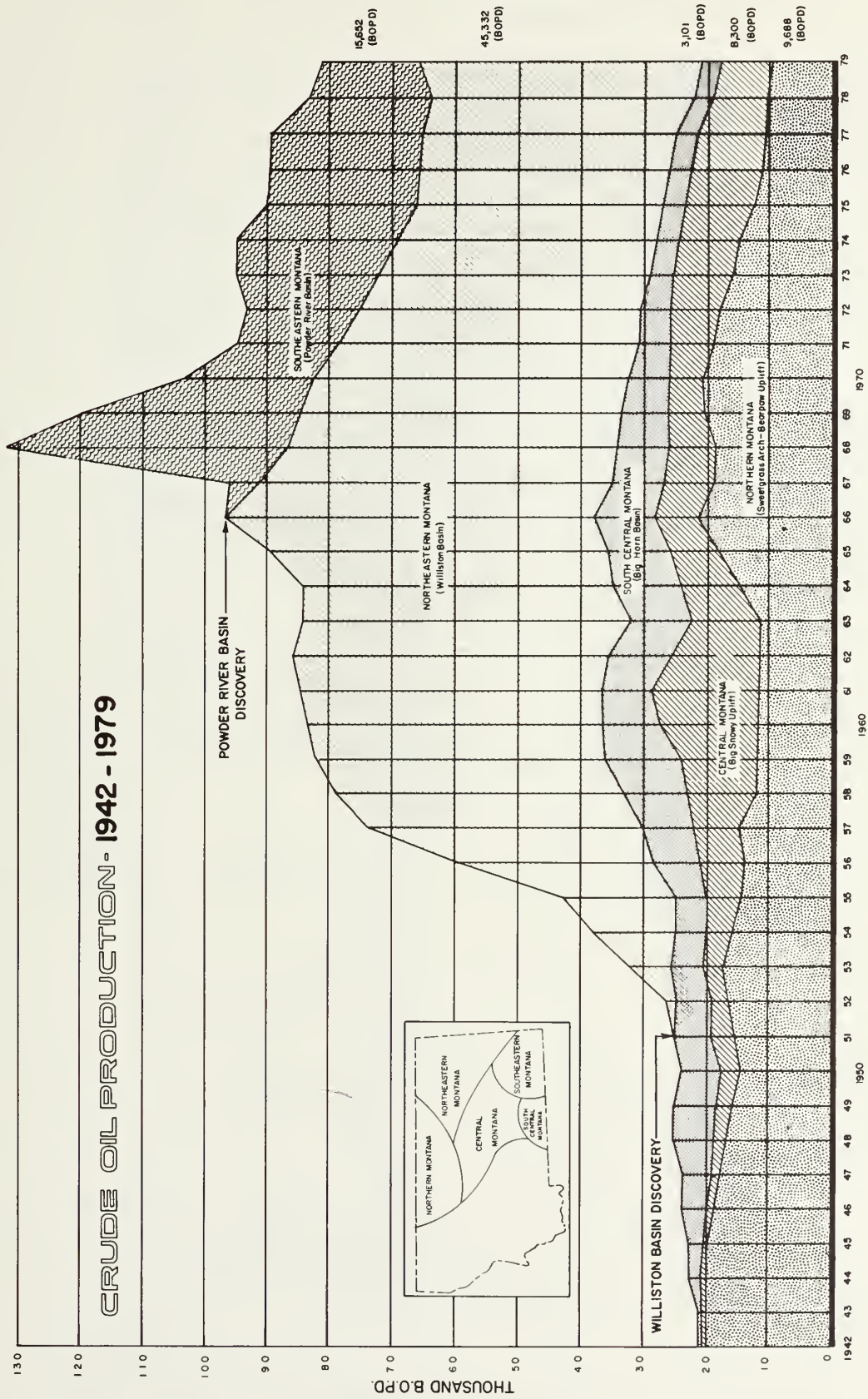
FIVE YEAR SUMMARY

	1975	1976	1977	1978	1979
Production, Northern Montana — Bbls.	4,551,324	4,200,539	4,060,957	3,671,322	3,536,296
South Central — Bbls.	1,318,779	1,246,005	1,210,064	1,095,737	1,131,798
Central — Bbls.	3,954,024	4,063,897	3,677,361	3,343,556	3,029,397
Williston Basin — Bbls.	14,312,685	14,496,380	14,621,635	15,103,853	16,546,576
Powder River Basin — Bbls.	8,706,862	8,807,439	9,110,037	7,252,869	5,713,032
TOTAL	32,843,674	32,814,260	32,680,054	30,467,337	29,957,099
No. of Producing Wells, Northern Montana	2,067	1,978	1,999	2,052	2,089
South Central	100	97	109	115	112
Central	303	316	343	347	340
Williston Basin	734	737	789	863	886
Powder River Basin	231	181	178	169	165
TOTAL	3,435	3,309	3,418	3,546	3,592
Average Daily Production/Well — BOPD,					
Northern Montana	6.0	5.8	5.6	4.9	4.6
South Central	36.1	35.1	30.4	26.1	27.7
Central	35.8	35.2	29.4	26.4	24.4
Williston Basin	53.4	53.8	50.8	48.9	51.2
Powder River Basin ...	103.2	133.3	140.2	117.6	94.9
STATE AVG.	26.2	27.1	26.2	23.5	22.9
Development Wells Drilled, Oil Wells	105	106	98	123	120
Gas Wells	261	264	220	223	235
Dry Holes	222	169	188	232	182
TOTAL	588	539	506	578	537
Exploratory Wells Drilled, Oil Wells	6	17	24	21	35
Gas Wells	15	8	19	15	20
Dry Holes	236	223	129	179	211
TOTAL	257	248	172	215	266
TOTAL WELLS DRILLED	845	787	678	793	803
TOTAL FOOTAGE DRILLED	2,467,838	2,826,301	2,482,379	2,968,842	3,147,341
AVERAGE DEPTH OF ALL WELLS	2,921	3,591	3,661	3,744	3,919

SUMMARY OF DRILLING BY COUNTIES — 1979
STATE OF MONTANA

County	Wildcats			Development			Total Wells	Footage Drilled	Average Depth
	Dry	Oil	Gas	Dry	Oil	Gas			
Big Horn	6			1	2		9	37,215	4,135
Blaine	15	1	3	21	1	28	69	125,861	1,824
Carbon				4	5		9	46,844	5,205
Carter	3					1	4	4,532	1,133
Cascade	2						2	1,456	728
Chouteau	9			4		3	16	39,793	2,487
Custer	6			1			7	28,625	4,089
Daniels	5						6	47,038	7,840
Fallon	5	1		2	4	2	13	92,654	7,127
Fergus	4			4			8	14,956	1,870
Garfield	6			1			7	23,366	3,338
Glacier	2			4	9	11	26	80,218	3,085
Golden Valley	4			1			5	14,398	2,880
Hill	16		4	23		13	56	127,776	2,282
Liberty	12	1		14	4	14	45	110,221	2,449
McCone	2			1			3	22,430	7,477
Meagher	1						1	6,225	6,225
Musselshell	18			13	11		42	190,464	4,535
Petroleum	1			1	5		7	19,241	2,749
Phillips	5		4			37	46	74,226	1,614
Pondera	18	1	3	14	5	40	81	167,277	2,065
Powder River	2			2			4	16,379	4,095
Richland	9	13		6	35		63	723,160	11,479
Roosevelt	11	3		8			22	192,931	8,770
Rosebud	9			13	5	2	29	136,503	4,707
Sheridan	12	14		6	14		46	445,930	9,694
Stillwater	5			2		5	12	29,833	2,486
Teton	6	1		2	8	4	21	55,537	2,645
Toole	9		6	30	7	68	120	219,861	1,832
Valley				4		7	11	14,725	1,339
Yellowstone	8				5		13	37,666	2,897
TOTALS	211	35	20	182	120	235	803	3,147,341	3,919

CRUDE OIL PRODUCTION - 1942 - 1979



GAS PRODUCTION DATA — 1979

14.73 PSIA @ 60°F

Field	County	Producing Formations	1979 Production MCF
Natural Gas			
Alma	Liberty	Blackleaf, Bow Island, and Sawtooth	4,177
Arch-Apex	Toole	Bow Island	297,129
Badlands	Hill	Eagle	368,598
Battle Creek	Blaine	Eagle	3,363,542
Bears Den	Liberty	Sawtooth and Sunburst	33,118
Bell Creek	Powder River	Muddy	407,787
Big Coulee	Golden Valley and Stillwater	Lakota and Morrison	1,235,579
Big Rock	Glacier	Blackleaf and Bow Island	703,778
Black Coulee	Blaine	Eagle	40,281
Black Jack	Liberty	Sunburst, Swift, and Blackleaf	256,053
Bowdoin	Phillips and Valley	Bowdoin and Phillips	7,988,565
Bowes	Blaine	Eagle	879,726
Browns Coulee	Hill	Judith River and Eagle	3,019
Bullwacker and Area	Blaine and Chouteau	Judith River, Eagle (Virgelle)	1,124,440
Canadian Coulee	Hill and Liberty	Sawtooth	543,328
Cedar Creek	Fallon	Judith River, Eagle	1,734,208
Chain Lakes	Hill	Eagle	15,822
Chinook, East	Blaine	Eagle	41,750
Chip Creek	Chouteau	Eagle - Virgelle	21,666
Coal Coulee	Hill	Eagle	47,842
Conrad Butte (Ledger Field)	Pondera and Toole	Bow Island	300,707
Cut Bank and Reagan	Glacier and Toole	Blackleaf, Moulton, Sunburst, Cut Bank and Madison	2,509,112
Dry Creek	Carbon	Judith River, Eagle, Frontier, Greybull and Lakota	1,117,789
Dunkirk, North	Toole	Bow Island	332,277
Ethridge	Toole	Bow Island, Swift	Shut-In
Flat Coulee	Liberty	Bow Island, Dakota, Swift, and Sawtooth	103,600
Fred and George	Toole	Sunburst, Swift	148,793
Fresno	Hill	Judith River, Eagle - Virgelle	94,706
Gold Butte	Toole	Bow Island	3,453
Grandview	Liberty	Bow Island, Madison	280,181
Gypsy Basin	Pondera	Sunburst	876,826
Hardin	Big Horn	Frontier	29,922
Haystack	Liberty	Bow Island	174,918
Highview	Pondera	Madison	107,451
Keith Block	Liberty	Blackleaf, Bow Island, Sawtooth	556,170
Kevin-Sunburst	Toole	Bow Island, Sunburst, Swift, Sun River and Nisku	771,607
Kicking Horse	Toole	Bow Island, Sunburst, Sawtooth	193,974
Kinyon Coulee and Area	Toole	Bow Island	59,490
Lake Basin	Stillwater	Claggett, Eagle-Virgelle, Telegraph Creek and Frontier	429,260
Leroy	Blaine	Judith River, Eagle, and Virgelle	981,041
Liscom Creek	Custer	Shannon	154,941
Little Rock	Glacier	Bow Island	1,857
Lohman	Blaine	Eagle	98,011
Marias River	Toole	Bow Island	305,573
Middle Butte	Toole	Bow Island	186,858
Middle Dry Creek	Carbon	Frontier and Lakota	26,002
Miners Coulee	Toole	Bow Island, Sunburst-Swift	269,651
Mt. Lily	Liberty	Madison	76,796
North Clark Fork	Carbon	Lakota	1,587
O'Briens Coulee	Liberty	Bow Island	102,231
Phantom	Toole	Sunburst, Swift	580,996
Plevna	Fallon	Judith River	31,867
Prairie Dell	Toole	Bow Island, Swift	694,836
Pumpkin Creek	Custer	Shannon	85,455
Rapelje	Stillwater	Judith River, Claggett, Eagle, Virgelle	173,277
Rocky Boy Area	Hill	Eagle	103,951
Rudyard	Hill	Sawtooth	644,033
Sage Creek	Liberty	Blackleaf	104,440
Sawtooth Mountain and Area	Blaine	Judith River and Eagle	1,278,872
Sherard	Blaine - Chouteau	Judith River and Eagle	770,184
Snoose Coulee	Liberty	Bow Island	104,479
South Devon	Toole	Bow Island	127,954
Strawberry Creek Area	Toole	Bow Island	44,759
Swanson Creek	Phillips	Phillips	60,877
Three Mile	Blaine	Eagle	8,245
Tiger Ridge	Blaine, Hill	Judith River and Eagle	15,000,016
Trail Creek	Liberty, Toole	Bow Island and Sunburst	Shut-In
Utopia	Liberty	Sawtooth	349,966
West Butte	Toole	Bow Island, Sawtooth and Madison	Shut-In
Whitlash	Liberty	Bow Island, Kootenai, Swift	845,436
Williams	Pondera	Bow Island	131,078
Willow Ridge	Toole	Bow Island	145,955
TOTAL NATURAL GAS			50,691,868

Field	County	Producing Formations	1979 Production MCF
Associated Gas			
Anvil	Roosevelt	Red River	37,324
Big Muddy	Roosevelt	Interlake, Red River	43,897
Blue Hills	Richland	Red River	15,523
Cabin Creek	Fallon	Mission Canyon, Interlake, Red River	242,236
Charlie Creek	Richland	Nisko and Duperow	5,589
Clear Lake	Sheridan	Mission Canyon, Red River	13,922
Colored Canyon	Sheridan	Red River	5,062
Culbertson	Roosevelt	Red River	86,035
Dagmar	Sheridan	Red River	7,088
Eagle	Richland	Mission Canyon	4,327
Elk Basin	Carbon	Tensleep	90,270
Fairview	Richland	Winneposis, Red River	231,006
Four Mile Creek	Richland	Red River	37,557
Four Mile Creek, West	Richland	Red River	61,429
Glendive	Dawson	Red River	1,802
Katy Lake, North	Sheridan	Red River	47,697
Lookout Butte (Coral Creek)	Fallon	Interlake and Red River	71,528
Medicine Lake	Sheridan	Winneposis, Red River	66,251
Mon Dak West	Richland	Madison, Mission Canyon, Ordovician	562,417
Otis Creek	Richland	Red River	23,344
Pennel	Fallon	Madison, Silurian, Ordovician	129,936
Pine	Dawson, Prairie, Fallon, and Wibaux	Interlake, Red River	52,967
Rattlesnake Coulee	Toole	Sunburst	
Refuge	Sheridan	Red River	4,358
Richland	Richland, Roosevelt	Madison, Winnepegosis, Silurian, Ordovician	685,542
Single Tree	Roosevelt	Red River	37,071
Sioux Pass	Richland	Mission Canyon, Silurian, Ordovician	241,636
Sioux Pass, East	Richland	Red River	7,474
Sioux Pass, Middle	Richland	Red River	83,989
Sioux Pass, North	Richland	Red River	133,504
South Clark Fork	Carbon	Greybull	106,781
Sumatra	Rosebud	Tyler	28,687
Tule Creek	Roosevelt	Nisku	25,856
Vaux	Richland	Mission Canyon, Red River	3,856
TOTAL ASSOCIATED GAS			3,195,961
TOTAL GAS PRODUCED -1979			50,691,868
NATURAL GAS IMPORTED MMCF			53,887,829
NATURAL GAS EXPORTED MMCF			
Canada	30,081	Canada	76
Wyoming	22,799	Wyoming	91
Dakotas	170	Dakotas	12,519
		Midwest	21,593
	53,050 MMCF		34,279 MMCF

BARRELS OF CRUDE OIL REFINED IN MONTANA — 1979

	CONTINENTAL OIL CO.	EXXON COMPANY	FARMERS UNION	KENCO REF. INC.	PHILLIPS PET. CO.	WESCO REF. CO.	TOTALS
Total Montana Oil	2,937,014	572,859	809,645	1,329,390	1,374,179	1,644,717	8,667,804
Canada Oil Imported	10,385,081	5,421,848	6,931,654	---	839,550	---	23,578,133
North Dakota Oil Imported	---	---	---	6,112	---	---	6,112
Wyoming Oil Imported	3,943,480	9,911,190	4,512,957	---	---	---	18,367,627
Total Montana, Canadian, North Dakota, & Wyoming Oil	17,265,575	15,905,897	12,254,256	1,335,502	2,213,729	1,644,717	50,619,676

PERCENTAGE OF CRUDE OIL REFINED

	Montana	Canada	North Dakota	Wyoming
Year: 1975	18.56%	40.28%	---	41.16%
Year: 1976	16.93%	46.69%	---	36.38%
Year: 1977	18.49%	43.32%	.41%	37.78%
Year: 1978	18.51%	44.71%	.14%	36.64%
Year: 1979	17.12%	46.58%	.01%	36.29%

AVERAGE BARRELS PER DAY

	Montana	Canada	North Dakota	Wyoming	Total
Year: 1975	24,463	53,077	---	54,237	131,777
Year: 1976	23,272	64,192	---	50,029	137,493
Year: 1977	24,461	57,317	549	49,994	132,230
Year: 1978	24,240	58,545	190	47,982	130,957
Year: 1979	23,747	64,598	17	50,322	138,684

REFINING FIVE YEAR COMPARISON

1975	1976	1977	1978	1979
48,098,535	50,322,433	48,297,000	47,738,947	50,619,676

BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

STATEMENT OF CRUDE OIL PRODUCTION AND VALUATION—ALL MONTANA FIELDS YEAR 1979 AND ACCUMULATED TOTALS FROM DISCOVERY DATE

FIELD	COUNTY	PRODUCTION YEAR 1979			CUMULATIVE TO DECEMBER 31, 1979	
		BARRELS	VALUE	AVERAGE PRICE	BARRELS	VALUE
Andes	Richland	5,865	103,593	17.663	5,865	103,593
Anvil	Roosevelt	142,331	1,926,165	13.533	185,758	2,488,979
Ash Creek	Big Horn	8,272	99,148	11.986	775,384	2,065,113
Bainville	Roosevelt	137	1,200	8.759	264,518	989,773
Bainville, North	Roosevelt	46,638	1,625,567	34.855	46,638	1,625,567
Bainville, West	Roosevelt	7,914	106,150	13.413	20,352	261,513
Bannatyne	Teton	4,982	120,036	24.094	244,104	855,017
Bear's Den	Liberty	10,628	243,424	22.904	446,809	1,747,709
Bell Creek	Powder River	5,676,329	56,337,565	9.925	108,245,487	616,560,755
Benrud, East	Roosevelt	88,511	600,813	6.788	2,326,716	8,777,852
Benrud, Northeast	Roosevelt	11,612	91,654	7.893	897,150	2,641,272
Berthelote	Toole	662	14,232	21.499	52,722	191,989
Big Gully	Musselshell	6,518	94,746	14.536	77,982	927,330
Big Gully, North	Musselshell	3,701	48,720	13.164	9,840	124,168
Big Muddy Creek	Roosevelt	49,943	679,674	13.609	846,377	10,523,286
Big Wall	Musselshell	112,785	1,976,895	17.528	6,904,462	19,104,067
Big Wall, North	Musselshell	982	22,605	23.019	6,373	85,857
Blackfoot	Glacier	17,850	421,920	23.637	1,118,318	3,686,826
Blue Hill	Richland	27,151	502,103	18.493	100,129	1,372,443
Border	Toole	12,285	219,680	17.882	1,318,504	2,738,777
Boulder	Richland	9,113	124,119	13.620	115,952	1,385,667
Bowes	Blaine	129,403	2,679,807	20.709	8,484,120	19,375,430
Bradley	Glacier	6,875	67,121	9.763	214,386	718,545
Brady	Pondera	1,403	37,317	26.598	60,025	244,442
Breed Creek	Rosebud	100,591	1,336,452	13.286	348,166	4,189,709
Brorson-Madison	Richland	37,479	453,946	12.112	461,110	2,242,483
Brorson-Red River	Richland	23,682	242,433	10.237	1,870,499	6,753,925
Brorson-Red River, South	Richland	77,881	883,794	11.348	1,146,247	5,767,405
Brush Lake	Sheridan	78,675	550,961	7.003	1,818,496	7,279,691
Burns Creek	Dawson	13,487	155,910	11.560	173,879	1,046,080
Cabin Creek	Fallon	1,604,731	11,481,850	7.155	76,220,448	226,832,928
Canal	Richland	27,987	261,315	9.337	514,883	2,314,633
Carlyle	Wibaux	53,401	715,947	13.407	82,374	1,085,353
Cat Creek	Petroleum, Garfield	88,990	2,218,521	24.930	22,849,936	51,257,510
Charlie Creek	Richland	145,931	1,976,052	13.541	389,930	4,941,954
Clark's Fork	Carbon	843	18,710	22.195	82,901	242,402
Clark's Fork, North	Carbon	1,554	48,337	31.105	1,022,260	2,809,894
Clark's Fork, South	Carbon	1,651	34,851	21.109	77,994	537,020
Clear Lake	Sheridan	247,299	4,063,370	16.431	446,847	6,517,294
Coal Ridge	Sheridan	8,182	313,616	38.330	8,182	313,616
Colored Canyon	Sheridan	60,127	868,294	14.441	116,259	1,574,210
Conrad, South	Pondera	1,613	45,280	28.072	132,238	524,105
Cow Creek	McCone	3,298	94,580	28.678	106,470	665,230
Cow Creek, East	McCone	130,026	1,603,871	12.335	1,773,297	12,678,607
Crane	Richland	17,770	372,033	20.936	17,770	372,033
Culbertson	Roosevelt	69,278	995,178	14.365	270,686	2,699,989
Cupton	Fallon	99,672	1,167,956	11.718	1,341,195	7,449,240
Cut Bank	Glacier, Toole	1,470,335	31,279,907	21.274	151,070,904	440,125,302
Dagmar	Sheridan	66,002	894,063	13.546	168,987	2,127,350
Dean Dome	Stillwater	5,367	69,358	12.923	23,573	250,808
Deer Creek	Dawson	6,640	68,923	10.380	2,269,928	5,634,608
Delphia	Musselshell	2,186	79,660	36.441	300,971	899,818
Divide	Sheridan	17,888	546,729	30.564	17,888	546,729
Dry Creek	Carbon	15,019	202,877	13.508	4,066,286	7,926,832
Dry Creek, West	Carbon	3,068	72,871	23.752	3,249	75,154
Dwyer	Sheridan	136,770	1,062,293	7.767	5,975,089	17,309,670
Eagle	Richland	30,509	547,026	17.930	73,745	1,086,192
Elk Basin	Carbon	987,401	8,099,650	8.203	75,613,989	208,063,326
Elk Basin, Northwest	Carbon	11,206	264,618	23.614	1,176,726	4,041,560
Enid, North	Richland	19,534	305,707	15.650	20,420	317,206
Fairview	Richland	186,375	1,326,990	7.120	5,847,638	21,866,285

		PRODUCTION YEAR 1979			CUMULATIVE TO DECEMBER 31, 1979	
FIELD	COUNTY	BARRELS	VALUE	AVERAGE	BARRELS	VALUE
				PRICE		
Fertile Prairie	Fallon	6,699	65,985	9.850	440,446	1,201,237
Flat Coulee	Liberty	148,430	1,968,182	13.260	3,235,348	14,845,919
Flat Coulee, East	Liberty	300	10,191	33.970	300	10,191
Flat Lake	Sheridan	540,796	4,382,611	8.104	11,383,703	42,540,106
Flat Lake, South	Sheridan	32,474	421,350	12.975	773,128	3,199,786
Fort Gilbert	Richland	38,573	341,872	8.863	1,092,698	4,507,907
Four Mile Creek	Richland	43,504	584,781	13.442	194,855	2,408,216
Four Mile Creek, West	Richland	78,968	1,067,805	13.522	154,482	1,991,761
Fox Creek	Richland	31,988	431,550	13.491	71,106	927,918
Fox Creek, North	Richland	9,558	134,911	14.115	12,300	155,975
Frannie	Carbon	5,905	57,639	9.761	718,215	1,795,179
Fred & George Creek	Toole	406,783	4,223,221	10.382	11,420,610	43,829,690
Frog Coulee	Richland	47,709	1,254,747	26.300	47,709	1,254,747
Froid, South	Roosevelt	4,648	114,866	24.713	164,714	762,556
Gage	Musselshell	772	17,655	22.869	562,333	1,056,699
Gas City	Dawson	98,814	976,085	9.878	8,881,911	26,615,365
Gettysburg	Richland	304	11,987	39.430	304	11,987
Glendive	Dawson	186,606	1,477,360	7.917	11,104,605	30,379,732
Goose Lake	Sheridan	209,089	2,218,225	10.609	7,036,730	23,766,766
Graben Coulee	Glacier	41,415	970,105	23.424	1,310,716	7,072,511
Grandview, East	Liberty	3,351	87,297	26.051	8,741	154,237
Gumbo Ridge	Rosebud	31,203	427,668	13.706	315,108	3,765,742
Gypsy Basin	Pondera	16,652	416,783	25.029	243,845	1,486,371
Hay Creek	Richland	37,012	314,935	8.509	988,915	3,955,247
Hiawatha	Musselshell	36,218	301,986	8.338	1,318,267	4,536,899
Hibbard	Rosebud	668	20,829	31.181	171,872	594,224
High Five	Rosebud	216,039	3,811,576	17.643	881,812	12,262,876
Highview	Pondera	1,289	44,330	34.391	4,353	80,095
Horse Creek	Liberty	441	9,002	20.412	5,206	68,167
Howard Coulee	Musselshell	13,051	167,353	12.823	95,302	1,075,072
Ivanhoe	Musselshell	20,200	516,453	25.567	4,408,596	11,650,592
Jackass Butte	Toole	492	18,371	37.340	4,972	40,863
Jim Coulee	Musselshell	205,571	1,188,200	5.780	3,316,624	23,401,900
Katy Lake, North	Sheridan	150,823	4,813,969	31.918	150,823	4,813,969
Keg Coulee	Musselshell	94,798	1,352,673	14.269	4,807,930	17,110,604
Keg Coulee, North	Musselshell	18,715	276,252	14.761	338,043	2,034,797
Kelley	Musselshell	13,799	160,110	11.603	866,733	2,928,531
Kevin Sunburst	Toole	344,953	8,279,907	24.003	72,896,124	145,078,170
Kicking Horse	Toole	164	6,028	36.757	164	6,028
Laird Creek	Liberty	11,920	277,140	23.250	502,612	2,668,852
Landslide Butte	Glacier	272	10,014	36.871	40,024	215,335
Laurel	Yellowstone	434	15,624	36.000	434	15,624
Leary	Powder River	26,838	307,912	11.473	346,015	2,087,512
Little Beaver	Fallon	400,452	2,554,083	6.378	8,837,777	29,226,321
Little Beaver, East	Fallon	126,578	1,018,067	8.043	4,441,296	13,560,613
Little Wall Creek	Musselshell	196,183	2,880,359	14.682	1,727,048	18,749,650
Lodge Grass	Big Horn	6,640	59,003	8.886	246,472	585,052
Lone Butte	Richland	28,551	396,516	13.888	270,368	3,060,191
Lonetree Creek	Richland	259,872	4,044,648	15.564	2,340,862	15,142,379
Long Creek	Roosevelt	5,720	80,223	14.025	29,007	374,412
Long Creek, West	Roosevelt	49,415	694,182	14.048	169,018	2,207,705
Lookout Butte (Coral Creek)	Fallon	600,564	4,815,322	8.018	18,850,104	60,146,327
Mason Lake	Musselshell	175,885	4,265,387	24.251	364,358	5,183,960
Mason Lake, North	Musselshell	1,663	47,879	28.791	8,244	133,274
McCabe	Roosevelt	25,748	346,877	13.472	36,515	483,952
Medicine Lake	Sheridan	232,681	5,729,072	24.622	232,681	5,729,072
Melstone	Musselshell	138,068	1,767,408	12.801	2,096,513	8,852,665
Mineral Bench	Roosevelt	3,894	93,923	24.120	154,302	589,881
Miner's Coulee	Toole	3,019	75,831	25.118	130,132	542,372
MonDak West	Richland	1,168,796	18,156,077	15.534	2,142,016	30,247,521
Monarch	Fallon	123,386	1,347,128	10.918	4,213,454	14,104,548
Mosser	Yellowstone	5,949	131,140	22.044	286,139	884,824
Nohly	Richland	61,709	671,024	10.874	894,990	6,859,446
North Fork	Richland	38,522	529,061	13.734	156,739	1,990,759
Otis Creek	Richland	34,695	455,545	13.130	579,962	4,326,309
Outlook	Sheridan	136,911	1,588,441	11.602	7,265,625	26,961,339

		PRODUCTION YEAR 1979			CUMULATIVE TO DECEMBER 31, 1979	
FIELD	COUNTY	BARRELS	VALUE	AVERAGE PRICE	BARRELS	VALUE
Outlook, South	Sheridan	6,521	65,562	10.054	651,607	1,774,605
Outlook, West	Sheridan	3,022	91,225	30.187	548,008	1,765,869
Oxbow	Roosevelt	56,977	772,893	13.565	86,243	1,141,264
Pelican	Sheridan	14,910	375,583	25.190	14,910	375,583
Pennel	Fallon	3,056,679	29,976,851	9.807	43,742,559	209,224,049
Pete Creek	Toole	1,934	25,767	13.323	5,973	73,349
Phantom	Toole	24,575	324,488	13.204	44,867	571,002
Pine	Dawson, Fallon, Prairie, Wibaux	2,140,881	14,022,771	6.550	89,962,982	270,823,841
Pine, East	Wibaux	747	10,131	13.562	19,349	233,378
Pondera	Pondera, Teton	279,025	6,392,463	22.910	21,436,280	64,009,737
Pondera Coulee	Teton	1,678	41,539	24.755	26,689	126,197
Poplar	Roosevelt	249,394	2,467,005	9.892	43,278,121	121,662,646
Poplar, Northwest	Roosevelt	119,189	1,961,970	16.461	1,240,310	11,118,453
Prairie Elk	McCone	3,589	115,189	32.095	50,677	406,636
Pritchard Creek	Toole	4,953	123,766	24.988	100,505	760,377
Putnam	Richland	445,773	9,438,351	21.173	1,291,821	14,319,062
Rabbit Hills	Blaine	46,713	640,108	13.703	403,465	3,427,287
Ragged Point	Musselshell	52,462	1,254,524	23.913	3,097,429	14,375,598
Rattler Butte	Rosebud	18,429	244,018	13.241	100,146	1,234,987
Rattlesnake Coulee	Toole	2,535	64,944	25.619	82,714	442,610
Raymond	Sheridan	227,745	4,146,325	18.206	2,184,985	17,522,926
Raymond, Northeast	Sheridan	15,112	202,758	13.417	104,067	1,297,829
Reagan	Glacier	243,027	5,922,082	24.368	6,583,843	30,059,227
Red Creek	Glacier	78,888	1,044,319	13.238	5,249,593	14,099,042
Red Fox	Roosevelt	2,387	70,333	29.465	361,513	1,142,419
Redstone	Sheridan	7,712	63,470	8.230	435,247	1,341,787
Refuge	Sheridan	17,853	644,422	36.096	17,853	644,422
Repeat	Carter	10,623	137,770	12.969	465,079	1,615,185
Reserve	Sheridan	47,167	616,001	13.060	1,267,784	4,777,414
Richey	Dawson, McCone	10,096	183,384	18.164	1,915,177	4,853,898
Richey, Southwest	McCone	7,392	180,461	24.413	1,864,529	5,233,599
Ridgelawn	Richland	45,101	989,561	21.941	78,536	1,410,299
RipRap Coulee	Roosevelt	16,702	222,855	13.343	117,875	1,290,800
Rocky Point	Roosevelt	19,187	260,291	13.566	32,450	430,164
Roscoe Dome	Carbon	1,684	48,703	28.921	1,684	48,703
Rosebud	Rosebud	19,689	309,314	15.170	333,696	3,994,437
Rudyard	Hill	2,333	21,053	9.024	2,917	22,039
Runaway	Teton	320	11,733	36.668	320	11,733
Rush Mountain	Sheridan	19,348	121,312	6.270	357,404	1,379,914
Salt Lake	Sheridan	16,391	162,550	9.917	284,598	1,307,377
Sand Creek	Dawson	18,584	308,699	16.611	2,208,288	8,041,896
Second Creek	Richland	80,084	1,114,929	13.922	756,554	8,269,184
Sheepherder	Musselshell	3,464	103,414	29.854	56,709	748,770
Shotgun Creek, North	Roosevelt	15,496	211,319	13.637	63,572	801,163
Sidney	Richland	202,618	4,362,572	21.510	1,167,186	8,668,539
Singletree	Roosevelt	27,684	372,627	13.460	36,077	480,292
Sioux Pass	Richland	175,003	2,427,817	13.873	1,936,844	21,322,301
Sioux Pass, East	Richland	6,401	86,862	13.570	35,024	432,278
Sioux Pass, Middle	Richland	148,440	2,924,713	19.703	466,738	6,830,159
Sioux Pass, North	Richland	178,323	3,736,580	20.954	938,679	12,674,835
Snyder	Big Horn	6,019	130,889	21.746	423,196	973,671
Soap Creek	Big Horn	53,694	1,258,748	23.443	2,063,745	6,517,655
Soap Creek, East	Big Horn	17,092	251,663	14.724	36,268	471,608
South Fork	Richland	159,602	2,224,373	13.937	396,856	5,251,386
Spring Lake	Richland	10,170	90,340	8.883	680,348	2,011,576
Stensvad	Musselshell, Rosebud	4,399	108,484	24.661	10,013,993	25,497,137
Sumatra	Rosebud	1,330,055	15,263,711	11.476	37,075,059	166,021,584
Sunnyhill	Sheridan	24,128	397,605	16.479	50,052	722,770
Tule Creek	Roosevelt	124,300	1,027,837	8.269	7,263,298	22,372,198
Tule Creek, East	Roosevelt	8,566	82,371	9.616	1,951,073	5,596,938
Tule Creek, South	Roosevelt	8,378	163,606	19.528	660,020	2,263,061
Utopia Swift	Liberty	53,537	710,597	13.273	126,707	1,560,454
Vaux	Richland	255,374	3,820,395	14.960	553,458	7,462,640
Vida	McCone	1,663	46,010	27.667	252,953	827,873
Volt	Roosevelt	83,998	846,868	10.082	2,265,674	8,574,476
Wagon Box	Musselshell	714	9,381	13.138	20,080	218,550

FIELD	COUNTY	PRODUCTION YEAR 1979			CUMULATIVE TO DECEMBER 31, 1979	
		BARRELS	VALUE	AVERAGE	BARRELS	VALUE
				PRICE		
Weed Creek	Yellowstone	4,281	57,049	13.326	576,671	1,894,309
Weldon	McCone	12,193	313,482	25.710	6,976,108	18,138,685
West Butte	Toole	7,724	96,990	12.557	207,563	750,072
Whitlash	Liberty	148,344	3,213,279	21.661	4,226,988	19,467,855
Whitlash, West	Toole	1,280	35,308	27.584	57,820	179,436
Willow Creek, North	Musselshell	7,559	195,695	25.889	262,148	1,389,471
Willow Ridge	Toole	4,185	103,637	24.764	15,455	255,751
Wills Creek, South	Fallon	35,909	373,525	10.402	827,091	2,987,544
Winnett Junction	Musselshell	84,029	1,182,540	14.073	423,118	4,717,551
Wolf Springs	Yellowstone	25,730	316,042	12.283	4,551,528	11,610,609
Woodrow	Dawson	16,710	131,775	7.886	1,015,457	2,948,012
Wrangler	Sheridan	20,934	744,853	35.581	20,934	744,853
Wrangler, North	Sheridan	4,350	163,121	37.499	4,350	163,121
Wright Creek	Powder River	9,865	232,212	23.539	204,224	1,262,205
Misc. Abandoned Fields	---	---	---	---	3,118,276	7,424,609
TOTALS		29,957,099	371,180,682	12.390	1,018,291,768	3,666,167,469

MISCELLANEOUS ABANDONED FIELDS AS OF DECEMBER 31, 1979

FIELD	BARRELS	DOLLARS	FIELD	BARRELS	DOLLARS
Bascom	27,830	65,674	Rough Creek	3,599	10,583
Belfry	91,804	233,602	Shotgun Creek	76,124	172,616
Benrud	215,294	620,925	Smoke Creek	100,305	221,361
Blackfoot, East	810	1,730	Tippy Buttes	4,820	59,199
Bloomfield	7,163	18,589	Viking	160	1,957
Bredette	185,176	412,504	Wibaux	23,580	42,945
Bredette, North	488,554	1,160,009	Wolf Creek	1,979	2,275
Bynum	5,971	15,320	Woman's Pocket	3,526	7,461
Cadmus	1,173	3,381	Yellowstone	39,405	72,518
Chelsea Creek	11,548	43,764	Wildcat, Blaine County	9,324	19,667
Devil's Basin	59,879	183,981	Wildcat, Carbon County	6,368	13,559
Four Buttes	41,067	122,184	Wildcat, Daniels County	3,508	7,787
Gage, Southwest	16,289	37,397	Wildcat, Fallon County	10,683	29,485
Girard	209,755	770,624	Wildcat, Glacier County	48,231	124,918
Golden Dome	40,485	140,901	Wildcat, Hill County	161	1,804
Grandview	3,243	6,983	Wildcat, Liberty County	3,254	19,148
Hardscrabble Creek	1,242	3,627	Wildcat, McCone County	12,575	41,467
Hawk Creek	6,577	12,939	Wildcat, Musselshell County	925	1,841
Injun Creek	23,038	59,061	Wildcat, Powder River County	27,445	65,594
Jack Creek	1,310	3,275	Wildcat, Richland County	339,775	815,192
Katy Lake	1,056	2,872	Wildcat, Roosevelt County	141,181	390,995
Lake Basin	473,639	661,111	Wildcat, Sheridan County	38,864	98,502
Line Coulee	57,789	138,495	Wildcat, Stillwater County	11,283	13,365
MacKay Dome	5,728	10,462	Wildcat, Toole County	35,809	118,817
Musselshell	14,938	32,179	Wildcat, Wibaux County	8,388	25,416
Pole Creek	169,726	277,956	TOTALS	3,118,276	7,424,609
Rattlesnake Butte	5,920	6,592			

COUNTY	OPERATOR-WELL NAME AND LOCATION	FIELD	TOTAL DEPTH	INITIAL POTENTIAL Oil B/D, Gas MCF	PRODUCING FORMATION	DATE COMPLETED
BLAINE	John J. Lyon, Fed 1-1, NE SW SW 1-34N-21E	Thirty Mile	1,750		Shut-in	Eagle 12-14-79
	Flare Energy Corp Galt #1, NE SW SW 23-35N-21E	Cherrypatch	2,036		Shut-in	Eagle 10- 3-79
DANIELS	Zinke & Philpy Inc, Brooks #1, C NE NW 26-35N-48E	Scoby*	6,700	14		Madison 11- 5-79
HILL	Charles W. Austin, Woepfel 15-7, SE SW,NE 15-34N-12E	Chain Lakes*	1,307	227		Eagle 8-22-79
	J. Burns Brown, Johnson 22-36-14 SW NW NE 22-36N-14E	Rough Ridge*	2,703		Shut-in	Eagle 5-27-79
	J. Burns Brown, Brown 13-37-13, SE.NW NW 13-37N-13E	Lakeside	2,398		Shut-in	Eagle 8-28-79
PHILLIPS	Xeno, Inc, Wagner 16-15, NW SE SE 15-32N-28E	Assiniboine Creek	1,594	34		Niobrara 9-21-79
PONDERA	General Well Service, Anderson #1, NE SW SW 27-27N-2E	Hardpan	900		2,000	Bow Island 9- -79
	General Well Service, Bishop 6-34, C SE NW 34-27N-2E	Hardpan**	2,180		Shut-in	Swift 12- 30-79
RICHLAND	Shell Oil, Bakken-Larson 24-2, SE SW 2-21N-58E	Crane**	13,400	298		Duperow 3- 7-79
	Shell Oil, U.S.A. 11X-12, NW NW 12-21N-58E	Crane	12,687	553		Red River 3- 5-79
	Sun Oil, Burgess #1, NW NW 3-22N-56E	Gettysburg	12,354	11		Mission Canyon 10- 9-79
	U.V.Industries, Merrill #1, NE SE 3-22N-57E	Putnam*	12,480	1,460		Red River 6-30-79
	Martin Oil Co., Texaco-State 16-1, SW NE 16-22N-58E	Fox Creek, North*	9,145	11		Mission Canyon 8-15-79
	Bass Enterprises, Scheetz 21-1, SE SW 21-22N-59E	Eagle*	12,400	51		Mission Canyon 11- 4-79
	Louisiana Land & Explor., Hatley #1, SE NE 10-23N-54E	Enid, North	11,800	90		Red River 4-26-79
	Anschutz Corp., State 9-23 #1, N/2 N/2 16-23N-54E	Enid, North*	11,822	7		Red River 8-21-79
	Southland Royalty, Prevost 1-24, NE SE 24-23N-56E	Putnam*	12,580	71		Red River 12- 2-79
	U.V.Industries, Obergfell 3-34, NW SW 34-23N-57E	Putnam, East*	12,670	660		Red River 4-10-79
	Patrick Petroleum, Albin-McMillan #1, NE NE 33-24N-57E	Mustang	12,720	519		Red River 4- 5-79
	B W A & B, State 36-14, SW SW 36-24N-59E	Ridgelawn**	9,372	110		Mission Canyon 7-18-79
	Getty Oil, Eldridge 7-31, SW NE 31-26N-56E	Andes	12,325	62		Red River 4- 1-79
	Hdmerich & Payne, Glatter #1, SW NE 25-26N-57E	Four Mile Cr, West*	12,716	247		Red River 8-18-79
	Terra Resources, Anderson 2-30, W/2 NW 30-26N-57E	Blue Hill*	12,600	143		Red River 10-18-79
	Energetics, Inc, Gifford 34-35, SW SE 35-27N-53E	Frog Coulee*	11,150	579		Red River 2-24-79
ROOSEVELT	Gulf Oil, Crusch 1-10, NE SE 10-28N-58E	Bainville, North**	12,550	45		Red River 11-28-79
	Terrapet Ltd, Crusch 1-3, NE SW 3-28N-58E	Bainville, North	12,660	215		Winnipegosis 8- 3-79
SHERIDAN	Terrapet Ltd, Bolstad 1-17, NE NE 17-31N-56E	Pelican	11,550	125		Red River 2-14-79
	Wm H. Hunt Trust Estate-Marshall #1, SW NW 4-31N-58E	Sunnyhill**	11,927	54		Ratcliffe 9- 7-79
	Mosbacher Production, Lodahl #1, NW SE 1-32N-56E	Colored Canyon*	11,530	72		Red River 10-10-79
	Sun Oil Co, Anderson #1, SE NE 9-32N-56E	Medicine Lake*	11,250	200		Red River 8- 6-79
	Sun Oil Co, Benson #1, SE SW 22-32N-56E	Medicine Lake	11,714	803		Red River 3-29-79
	Sun Oil Co, Benson #3, SE SW 22-32N-56E	Medicine Lake**	10,400	157		Winnipegosis 6-13-79
	Sun Oil Co, Land 1A-27, NW NE 27-32N-56E	Medicine Lake**	8,500	155		Ratcliffe-Midale 11- 3-79
	Gulf Oil, Stromberg #1, NE NW 11-32N-57E	Katy Lake, North	11,600	1,161		Red River 6- 7-79
	Gulf Oil, Stringer 1-14-1B, C NE NW 14-32N-57E	Katy Lake, North*	12,001	709		Red River 8- 1-79
	Patrick Petroleum, Olson 1-20, SW 20-32N-57E	Refuge*	11,550	322		Red River 10- 2-79
	Patrick Petroleum, Olson #2, NW SW 28-33N-58E	Clear Lake,South**	9,090	62		Nisku 5-16-79
	Mosbacher Production, Larsh 14-1, SE NE 14-34N-56E	Wrangler, North	11,300	284		Red River 12- 1-79
	Mosbacher Production, Johnson #1, NW SE 25-34N-56E	Wrangler	11,450	66		Red River 4-26-79
	Centura, Inc, Spoklie 1-24, SE SW 1-34N-57E	Coal Ridge	8,790	88		Mission Canyon 10-16-79
	Beren Corp, Christensen #1, SW NW 22-34N-57E	Lowell	11,262	274		Red River 12- 7-79
	Orbit Oil & Gas, Morken #1, SW NE 27-34N-58E	Divide	11,500	106		Ratcliffe 7-31-79
	Orbit Oil & Gas, Cova #1, C NE NE 35-34N-58E	Divide*	8,106	11		Mission Canyon 11-30-79
TETON	Santa Fe Energy, State #10, SW NE 16-36N-54E	Raymond**	7,490	192		Charles 11-16-79
	True Oil, Caskey 14-4, C SW SW 4-25N-3W	Runaway	1,816	11		Madison 9-21-79
TOOLE	Mountain States Resources, Bills Ranch 6-10, NW SE 6-27N-6W	Bills Coulee	3,030	50	5,400 (Condensate)	Sunburst 12- -79
	Adobe Oil & Gas, Peterson #1, SE NW NW 2-30N-2E	Tiber*	935		Shut-in	Bow Island 12- 8-79
TOOLE	General Well Service, Benjamin #1, SW NE SW 21-31N-2E	Tiber	2,485		Shut-in	Bow Island 7-25-79
	Marquis Petroleum, McCarter 26-1, SW NE NE 26-32N-2E	Devon*	715		Shut-in	Bow Island 10-12-79
	Mapco, Wohlrabe #1, SW NE 3-33N-3E	Antelope Coulee	2,380		574	Bow Island 1-16-79
	General Well Service, State 7-16, NE SW NE 16-33N-4W	Cut Bank*	2,015		Shut-in	Bow Island 8-29-79
	Texaco, Potlash Oil & Ref. #1, SW NW 29-34N-1W	Kevin-Sunburst**	3,354		2,527	Duperow 10-28-79
	Kissinger Petroleum, Mountain 16-13, SE SE 13-36N-4W	Amanda	2,726		380	Sunburst-Swift 1-28-79

SUMMARY OF SECONDARY RECOVERY PROJECTS - JANUARY 1, 1980

Field, Formation	Operator	Type of Project	Injection Pattern	Date Inj. Comm.	Cumulative Injections 1000's Bbls. or MCF	Avg. Daily Inj. Rate Bbls. or MCF	No. of Inj. Wells	Source of Injection Media and Remarks
Ash Creek, Shannon	Transocean, Inc.	Wtrfld.	Peri.	10-64	1,228	564	3	Parkman
Bell Creek, Unit "A", Muddy	Cary	Wtrfld.	Peri.	7-70	117,874	37,389	28	Madison
Bell Creek, Unit "B", Muddy	Gary	Wtrfld.	Peri.	10-70	31,221	9,193	12	Madison
Bell Creek, Ranch Unit, Muddy	Gary	Wtrfld.	Peri.	7-70	34,555	5,678	7	Madison
Bell Creek, Unit "C", Muddy	Gary	Wtrfld.	Peri.	12-71	19,079	6,299	5	Madison
Bell Creek, Unit "D", Muddy	Gary	Wtrfld.	Peri.	8-72	22,742	6,874	10	Madison
Bell Creek, Unit "E", Muddy	Gary	Wtrfld.	Peri.	8-72	17,415	5,403	14	Madison
Big Wall, Tyler B	Texaco, Inc.	Wtrfld.	Peri.	8-66	22,993	2,940	2	Produced, Amsden & Tyler
Blackfoot, Cut Bank	Croft Pet. Co.	Wtrfld.	Random	11-76	549	452	3	Madison
Border, Old, Cut Bank	BC&O Co.	Wtrfld.	Random	6-73	812	-0-	SI	Madison
Bowes, Sawtooth	Texaco, Inc.	Wtrfld.	Random	5-61	8,445	929	5	Madison
Cabin Creek, Siluro-Ord.	Shell	Wtrfld.	Semi-Peri.	6-59	192,645	28,252	28	Produced & Fox Hills
Cat Creek, East Oome, Swift	Hoss	Wtrfld.	Semi-Peri.	7-70	666	282	4	Third Cat Creek
Cat Creek, Unit 1, 1st & 2nd C.C.	Farmers Union	Wtrfld.	Semi-Peri.	10-62	12,872	1,447	5	Third Cat Creek
Cat Creek, Unit 2, 1st & 2nd C.C.	Farmers Union	Wtrfld.	Semi-Peri.	12-59	18,900	866	5	Third Cat Creek
Cat Creek, Mosby, Swift	Farmers Union	Wtrfld.	Random	7-67	4,729	583	3	Third Cat Creek
Cat Creek, Mosby, Amsden	Farmers Union	Wtrfld.	Random	6-71	202	115	1	Third Cat Creek
Cut Bank, Marina West, Cut Bank	BC&O Co.	Wtrfld.	5-Spot	6-72	2,075	-0-	SI	Madison
Cut Bank, Tweedy, Cut Bank	BC&O Co.	Wtrfld.	5-Spot	6-72	1,016	82	4	Madison
Cut Bank, NE, Cut Bank	Texaco, Inc.	Wtrfld.	5-Spot	6-63	13,409	-0-	SI	Madison
Cut Bank, NW, Cut Bank	Phillips	Wtrfld.	5-Spot	1-62	16,385	1,030	12	Madison
Cut Bank, NC, Cut Bank	Phillips	Wtrfld.	5-Spot	5-78	1,134	1,934	16	Madison
Cut Bank, SC, Cut Bank	Union	Wtrfld.	5-Spot	5-63	37,179	3,781	29	Madison
Cut Bank, SE, Cut Bank	Texaco, Inc.	Wtrfld.	5-Spot	4-62	59,823	5,896	38	Madison
Cut Bank, SW, Cut Bank	Phillips	Wtrfld.	5-Spot	9-62	93,564	14,908	94	Madison
Cut Bank, Lander "A"	Phillips	Wtrfld.	Random	4-65	1,625	129	2	Madison
Cut Bank, Lander	Texaco, Inc.	Wtrfld.	Random	7-64	8,128	-0-	SI	Eagle
Cut Bank, McGuiness, Moulton	Union	Wtrfld.	Random	12-62	4,986	978	1	Madison
Cut Bank, Cut Bank	Oamson	Wtrfld.	5-Spot	9-71	4,805	762	7	Madison
Cut Bank, Two Medicine, Cut Bank	Miami	Wtrfld.	Random	12-67	44,816	4,170	85	Madison
Cut Bank, Moulton, Moulton	Union	Wtrfld.	Random	11-69	-0-	-0-	--	Madison-Shut In
Oalquist, Secondary Unit, Cut Bank	Union	Wtrfld.	Random		7	19	1	Madison
Oarling, State, Moulton	BC&O Co.	Wtrfld.	Random	2-67	2,472	-0-	SI	Madison-Shut In
Darling, NE Unit, Moulton	Ralph Fair	Wtrfld.	Random	2-68	5,614	285	2	Produced Water
Oarling, South Swenson, Moulton	BC&O Co.	Wtrfld.	Random	2-67	7,548	-0-	SI	Madison
Dwyer, Ratcliffe	Phillips	Wtrfld.	Peri.	10-68	2,708	1,132	2	Madison
Elk Basin, Embar-Tensleep	Amoco	Wtrfld.	Random	12-72	2,331	-0-	--	Produced Gas (None)
Elk Basin, Frontier	Amoco	Wtrfld.	Random	1926	4,252	1,754	2	Madison
Elk Basin, Unit 2, Tensleep	Amoco	Wtrfld.	Random	1949	2,431	-0-	--	Produced Water
Elk Basin, Madison	Amoco	Wtrfld.	Peri.	1962	74,006	11,955	8	Produced Water
Elk Basin, NW, Tensleep	ARCO	Wtrfld.	Semi-Peri.	5-76	4,990	164	2	Madison
Fairview, NW Unit, Red River	Superior	Gas Inj.	Crestial	10-67	4,033	882	1	Purchased Gas
Flat Coulee, Swift	Phillips	Wtrfld.	Peri.	2-72	5,589	1,954	13	Eagle
Flat Lake, Ratcliffe	Chevron	Wtrfld.	Random	6-71	21,639	5,488	11	Produced Water
Frannie, Tensleep	Continental	Wtrfld.	Random	9-70	3,090	998	1	Produced Water
Fred & George, Sunburst	Fulton	Wtrfld.	Random	7-70	25,533	13,153	2	Madison & Eagle
Gas City, Red River	Shell	Wtrfld.	Semi-Peri.	10-69	12,942	743	2	Mission Canyon
Coose Lake, Ratcliffe	Cotton Pet.	Wtrfld.	Semi-Peri.	1-73	7,645	3,573	5	Produced Water

Field, Formation	Operator	Type of Project	Injection Pattern	Date Inj. Comm.	Cumulative Injections 1000's Bbls. or MCF	Avg. Daily Inj. Rate Bbls. or MCF	No. of Inj. Wells	Source of Injection Media and Remarks
Gumbo Ridge, Tyler	BN	Wtrfld.	Semi-Peri.	--	--	--	--	Third Cat Creek
Jim Coulee, Tyler B	McAlester Fuel	Wtrfld.	Semi-Peri.	6-72	4,545	2,373	3	Third Cat Creek
Keg Coulee, NW Unit, Tyler B	Flatt Corp.	Wtrfld.	Semi-Peri.	8-66	5,497	586	2	Madison
Keg Coulee, East, Tyler	Juniper Pet.	Wtrfld.	Semi-Peri.	12-69	3,609	-0-	--	Third Cat Creek
Keg Coulee, South, Tyler	BG&O Co.	Wtrfld.	Semi-Peri.	1-70	3,238	611	2	Madison
Kelley, Tyler	McAlester Fuel	Wtrfld.	Random	7-69	2,793	693	3	Third Cat Creek
Kevin-Sunburst, Madison	BG&O Co.	Wtrfld.	Random	8-64	7,799	1,165	7	Madison
Kevin-Sunburst, Madison	Texaco, Inc.	Wtrfld.	Semi-Peri.	8-64	10,252	1,008	7	Madison
Laird Creek, Swift	BN	Wtrfld.	Semi-Peri.	2-77	606	403	3	Sawtooth
Laurel, Dakota	Lakota Energy	Gas Inj.	Random	--	-0-	-0-	--	Muddy (Not initiated)
Little Beaver, Red River	Shell	Wtrfld.	Semi-Peri.	8-66	32,231	6,480	11	Produced Water
Little Beaver, East, Red River	Shell	Wtrfld.	Semi-Peri.	4-65	12,657	2,096	5	Red River-Minnelusa
Lookout Butte (Coral Creek), Red River	Shell	Wtrfld.	Semi-Peri.	4-67	28,482	6,100	11	Minnelusa
Lookout Butte (Coral Creek) Mlp Ord.- Commingle	Shell	Wtrfld.	Semi-Peri.	9-76	1,374	1,194	1	Minnelusa (2/69-9/76 Cum RR 1,625 & Mlp 1,993 M bbls.)
Pennel, Red River	Shell	Wtrfld.	Random	8-69	82,403	30,888	52	Dakota & Produced
Pine, South, Red River	Shell	Wtrfld.	Semi-Peri.	3-59	164,000	18,911	23	Fox Hills & Produced
Pine, North, Silurian-Ord.	Shell	Wtrfld.	Semi-Peri.	3-68	18,300	121	3	Lodgepole
Pritchard Creek, Sunburst	Fulton	Wtrfld.	Random	4-73	119	167	1	Eagle
Ragged Point, Tyler	BG&O Co.	Wtrfld.	Semi-Peri.	12-66	7,269	460	5	Third Cat Creek
Reagan, Madison	Union	Gas Inj.	Random	8-61	5,108	529	2	Gas Injection
Reagan, Madison	Union	Wtrfld.	Random	7-73	1,720	866	4	Produced Water
Red Creek, Cut Bank	Exxon	Wtrfld.	5-Spot	6-65	13,489	2,422	5	Madison
Richey, S.W., Dawson Bay & Interlake	ARCO	Wtrfld.	Random	12-65	2,447	172	1	Fox Hills
Stensvad, Tyler	Ada Res., Inc.	Wtrfld.	Semi-Peri.	2-63	28,137	184	2	Madison
Sumatra, Tyler	BG&O Co.	Wtrfld.	Semi-Peri.	--		-0-	--	Not Initiated
Sumatra, West, Tyler	Continental	Wtrfld.	Semi-Peri.	10-68	27,360	12,335	11	Produced Water
Sumatra, Central, Tyler	Texaco, Inc.	Wtrfld.	Semi-Peri.	9-69	86,732	17,698	16	Madison & Produced Water
Sumatra, NE, Tyler	Texaco, Inc.	Wtrfld.	Semi-Peri.	9-69	5,637	1,532	6	Madison & Produced Water
Sumatra, SE, Tyler	BG&O Co.	Wtrfld.	Semi-Peri.	12-69	12,021	2,795	6	Madison
Sumatra, Grebe, Tyler	Farmers Union	Wtrfld.	Random	6-75	372	263	1	Judith River
Winnett Junction, Tyler	Petro-Lewis	Wtrfld.	Random	10-77	2,065	2,173	1	Produced

OIL AND GAS FIELDS

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
ALMA					
Greenhorn (U. Cret.)	1	Structural	Depletion	640-acre spacing units. Location to be no closer	None
Blackleaf & Bow Island (L. Cret.)	1	Strat.		than 990' from spacing unit boundary. (Order	
Sawtooth (M. Jur.) (Shut-in)	1			19-77.)	
AMANDA					
Swift (U. Jur.)	1	Strat.	Depletion	320-acre spacing units for gas with one well per	None
Cut Bank (L. Cret.) (Shut-in)	1			horizon from the base of the Swift to the surface to be located no closer than 660' from unit bound- ary. Spacing Unit to consist of two contiguous quarter sections lying within one or two govern- mental sections (Order 76-79).	
ANDES					
Red River (Ord.)	1	Structural	Water Drive	State-wide.	None
ANTELOPE					
Swift (U. Jur.)	7	Structural	Water Drive	(Listed as part of Cat Creek Field.)	None
Kootenai (L. Cret.)	1				
ANVIL					
Red River (Ord.)	1	Structural- Strat.	Water Drive	State-wide.	None
ARCH APEX					
Bow Island (L. Cret.) Gas	33	Strat.	Volumetric	330' from legal subdivision; 2400' from any other	None
(Shut-in)	10			drilling or producible gas well producing from the	
Swift (Jurassic) Gas	1	Strat.	Volumetric	same reservoir; 75' topographic tolerance. (Order	
Sunburst (L. Cret.) Oil	6	Strat.	Depletion	4-60.) Sometimes called Colorado Blackleaf pool.	
(Shut-in)	6			(Swift) State-wide.	
ASH CREEK					
Shannon (U. Cret.)	3	Structural	Partial Water	Spacing waived within unitized portion of field	Waterflood started October, 1964.
(Shut-in)	3		Drive and Depletion	except no well may be drilled closer than 660' from unit boundary. (Order 4-65.)	(Orders 22-64, 15-66.)
ASSINIBOINE CREEK					
Niobrara (U. Cret.)	1	Structural	Depletion	State-wide.	None
BADLANDS					
Eagle (U. Cret.) Gas	7	Structural Strat.	Volumetric	Drilling and spacing units allow one well per	None
				governmental section to be located anywhere within a section but no closer than 990' from a section line (Order 22-78.)	
BAINVILLE					
Red River (Ord.) (Shut-in)	1	Structural- Strat.	Depletion- Water Drive	State-wide.	Produced Water disposed into Red River formation. (Order 7-A-75.)
BAINVILLE, NORTH					
Winnepegosis (Dev.)	2	Structural	Water Drive	320-acre spacing units to consist of two govern- mental quarter sections located in either one or	None
Red River (Ord.)	1			two governmental sections. Wells to be located no closer than 660' to unit boundary and no closer than 1650' to any well producing from the same formation. (Order 84-79).	
BAINVILLE, WEST					
Ratcliffe (Miss.)	1	Structural- Strat.	Depletion- Water Drive	320-acre spacing units to consist of two govern- mental quarter sections that may be in either one or two governmental sections. Location to be no closer than 660' to the unit boundary or closer than 1650' to another producing well within the field. (Order 19-78.) (Amendment to Order 19-78 by Order 42-79.)	None
BANNATYNE					
Swift (U. Jur.)	12	Structural	Comb. Water	Center of 10-acre tracts, 50' topographic toler- ance. Commingling permitted. (Order 20-58.)	Pilot waterflood of Swift suspen- ded in 1963.
Sun River (U. Miss.) (Shut-in)	2		Drive and Volumetric		
BATTLE CREEK					
Eagle (U. Cret.) Gas	24	Structural	Volumetric	State-wide.	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
BEARS DEN					
Sunburst (L. Cret.) Gas (Shut-in)	1	Structural	Depletion and Gas Cap Drive	State-wide.	None
Swift (U. Jur.) Oil	7				
Sawtooth (Jur.) Gas (Shut-in)	1				
BELL CREEK					
Muddy (L. Cret.) Oil & Gas	157	Strat.	Depletion	Originally 40-acre spacing units with location 660' from unit boundary with 150' tolerance for topographic reasons only. (Orders 37-67, 39-67, 50-67, 1-69, 17-70.) Field now unitized.	Six areas unitized (Unit "A", "B", Ranch Creek, "C", "D", and "E".) Floods used Madison water. (Orders 7-70, 23-70, 8-71, 26-71, 35-71, 36-71.)
Gas (Shut-in)	2				
Oil (Shut-in)	128				
BELL CREEK SOUTHEAST					
Muddy (L. Cret.) Gas (Shut-in)	4 1	Strat.	Depletion	160-acre spacing units, wells 660' from spacing boundary. (Order 31-72.)	None
BENRUD					
Nisku (Dev.) (Shut-in)	2	Structural	Water Drive	160-acre spacing units with permitted location within a 1320' square in center of quarter section. (Order 6-65.)	Water disposal into Judith River formation. (Order 64-62.)
BENRUD, EAST					
Nisku (Dev.)	2	Structural	Water Drive	Same as Benrud Field. (Order 6-65.)	Water disposal into Judith River formation. (Orders 64-62, 32-66, 4-A-73.)
BENRUD, NORTHEAST					
Nisku (Dev.)	1	Structural	Water Drive	Same as Benrud Field. (Order 6-65.)	Water disposal into Judith River formation. (Order 32-66.)
BERTHELOTE					
Sunburst (L. Cret.) (Shut-in)	1 1	Strat.	Depletion	40-acre spacing units with well no closer than 330' from lease or property line and no closer than 660' between wells. (Order 18-66.)	None
BIG COULEE					
3rd Cat Creek (L. Cret.) Gas	8	Structural	Water Drive	State-wide.	None
Morrison (U. Jur.) Gas (Shut-in)	1	Structural	Water Drive		
Frontier (U. Cret.) Gas (Shut-in)	1	Structural-Strat.	Water Drive		
BIG GULLY					
L. Tyler (Penn.)	2	Strat.	Depletion	State-wide.	None
BIG GULLY, NORTH					
L. Tyler (Penn.)	1	Strat.	Depletion	State-wide.	None
BIG MUDDY CREEK					
Interlake (Sil.) (Shut-in)	1	Structural	Water Drive	One well per 320 acre spacing unit with well no closer than 660 feet from boundary of four east-west units. (Order 4-75.)	None
Red River (Ord.)	3				
BIG ROCK					
Blackleaf (L. Cret.) Gas (Shut-in)	37 1	Strat.	Depletion	640-acre spacing units for Blackleaf "A" formation. Location to be no closer than 990' to any governmental section line. (Order 31-78.)	None
BIG WALL					
Amsden (Penn.)	3	Structural	Water Drive	Spaced by old state-wide spacing; 330' from lease or property line, 990' between wells in same reservoir. (Order 12-54.)	Previous disposal into Tyler "A" stopped in 1961. Waterflood of Tyler "B" sand started August, 1966. (Order 22-66.) Excess produced water disposed into the Tyler "B" formation. (Order 13-A-77.)
Tyler (Penn.)	9	Structural-Strat.	Depletion		
(Shut-in)	5				
BIG WALL, NORTH					
Stensvad (Penn.)	1	Structural-Strat.	Water Drive	State-wide.	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
BLACK COULEE					
Eagle (U. Cret.) Gas (Shut-in)	3 1	Structural- Strat.	Water Drive	320-acre spacing units; well to be located no closer than 990' from unit boundary (Order 6-73.) Well location to be no closer than 660' to eastern boundary of Black Coulee Field. (Order 37-79.) Field extension. (Order 71-79.)	None
BLACKFOOT					
Cut Bank (L. Cret.)	6	Strat.	Oepletion	One well only per 40-acre spacing unit, 300' tolerance from center of spacing unit. Dual completion in Cut Bank and Madison with administrative approval. (Order 3-57.)	Waterflood started November, 1976. (Order 34-76.)
BLACK JACK					
Sunburst (L. Cret.) Gas	12	Strat.	Oepletion	One gas well per 160-acres, no closer than 660' from boundary of each unit. (Order 3-69.) State-wide spacing. Order 3-69 amended to include Blackleaf in spacing and field rules for gas. (Order 4-74.) Blackleaf gas pooled. (Order 3-75.)	None
Swift (U. Jur.) Gas & Oil (Shut-in)	2				
Blackleaf (U. Cret.) Gas	2				
BLUE HILL					
Red River (Ord.)	2	Structural	Water Drive	State-wide.	None
BORDER					
Cut Bank (L. Cret.) Oil & Gas	9	Strat.	Depletion	Oil: Unitized into New and Old Border fields. Unitized 6-1-73. (Orders 8-73, 9-73.)	Waterflood approved. (Orders 8-73, 9-73, 28-73.)
(Shut-in)	2			Gas: 330' from boundary of legal subdivision. 2,400' between wells in same formation on same lease. 75' topographic tolerance. (Order 7-54.)	
Cut Bank (L. Cret.) Gas	2				
BOULDER					
Ouperow (Oev.)	1	Structural	Water Drive	State-wide spacing (Order 16-71)	None
BOWDOIN					
Bowdoin & Phillips sands in	242	Structural	Volumetric	One well per quarter section not less than 1000' from lease boundary or less than 2000' from any gas well in same horizon. (Order 29-55.) Unitized 1958. Delineated: (Order 3-72.)	Produced water injected into Phillips Sand-Ashfield unit. (Order 10-A-77.)
Colorado Shale (U. Cret.) Gas	59*				
(Shut-in)	135				
*Gas wells outside boundary.					
BOWES					
Eagle (U. Cret.) Gas	29	Structural	Volumetric	660' from boundary of legal subdivision, 1320' from other wells in same formation. 75' topographic tolerance. (Order 23-54.) Order 23-54 amended by establishing 160-acre Eagle spacing units in Sec. 5, 6, 7, 8, 17, 18-31N-19E. (Order 44-75.)	None
(Shut-in)	8				
Sawtooth (M. Jur.) Oil	54	Structural	Partial	330' from lease or property line, 990' between wells in the same formation. (Order 13-54.)	Pilot waterflood initiated in 1961 and expanded to fieldwide waterflood in 1965. (Order 6-61.) Water from Madison.
(Shut-in)	34		Water Drive		
BRADLEY					
Sun River (Miss.)	2	Structural	Water Drive	State-wide.	None
BRADY					
Sunburst (L. Cret.)	1	Strat.	Depletion	10-acre spacing units with 75' topographic tolerance from center of spacing unit. (Orders 34-62, 55-62.)	None
(Shut-in)	2		Partial Water Drive		
BREED CREEK					
Tyler (Penn.)	5	Strat.	Oepletion	State-wide.	None
(Shut-in)	1				
BRORSON					
Mission Canyon (Miss.) Oil & Gas	6	Structural	Volumetric	One well per 160-acre unit, no closer than 660' from unit boundary (Mission Canyon and Red River.) (Order 5-69.) Gas to Brorson Field Plant	None
(Shut-in)	1		Water Drive		
Red River (Ord.) Oil & Gas	3				
(Shut-in)	1				
BRORSON, SOUTH					
Red River (Ord.) Oil & Gas	4	Structural	Volumetric	One well per 160-acre unit, no closer than 660' from unit boundary. (Order 26-68.) Gas to Brorson Field Plant. Reduced Field Area. (Order 26-77.)	None
(Shut-in)	1		Water Drive		

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
BROWN'S COULEE					
Judith River (U. Cret.) Gas (Shut-in)	2	Structural	Volumetric	One well per 160-acre unit with well location no closer than 660' from unit boundary. Commingling permitted with administrative approval. (Order 7-74.)	None
Eagle (U. Cret.) Gas (Shut-in)	1				
BROWN'S COULEE, EAST					
Eagle (U. Cret.) Gas (Shut-in)	2 4	Structural	Volumetric	State-wide.	None
BRUSH LAKE					
Red River (Ord.) Oil & Gas (Shut-in)	5 2	Structural- Strat.	Depletion Water Drive	320-acre spacing with initial nine spacing units described in (Order 15-71 corrected.)	None
BULLWACKER					
Judith River (U. Cret.) Gas Eagle-Virgelle (U. Cret.) Gas (Shut-in)	5 38 7	Structural	Volumetric	One well per 320-acre spacing unit with well location no closer than 660' from unit boundary and 990' from field boundary. (Order 26-74.)	None
BURNS CREEK					
Red River (Ord.)	2	Structural	Depletion Water Drive	State-wide.	None
CABIN CREEK					
Mission Canyon (Miss.) Oil & Gas (Shut-in)	10 16	Structural	Water Drive Depletion	Spacing waived and General Rules No. 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are suspended until present Unit Agreement becomes inoperative. (Order 36-62.) Many wells produce from both Interlake and Red River by dual completions. Gas through extraction plant.	Waterflood of Siluro-Ordovician reservoir has been expanded to full scale peripheral flood (Orders 60-62, 30-63.)
Interlake-Red River Oil & Gas (Sil.) (Ord.) (Shut-in)	71 6	Structural	Water Drive, Depletion		
CANADIAN COULEE					
Sawtooth (M. Jur.) Gas (Shut-in)	2 2	Structural- Strat.	Volumetric	320-acre spacing units with well location no closer than 660' from unit boundary, and 990' from field exterior boundaries. (Order 18-76.)	None
CANADIAN COULEE, NORTH					
Sawtooth (M. Jur.) Gas (Shut-in)	3 2	Structural- Strat.	Volumetric	640-acre spacing units. Location to be no closer than 1650' to section line (Order 15-75.)	None
CANAL					
Red River (Ord.) Mission Canyon (Miss.)	1 1	Structural Structural	Water Drive Depletion	320-acre spacing units consisting of East half and West half of governmental section. (Order 34-70.)	None
CARLYLE					
Red River (Ord.)	2	Structural	Water Drive	320-acre spacing units; to consist of either the N/2 or S/2 or E/2 or W/2 of section or lots corresponding thereto. Well location to be no closer than 660' to unit boundary nor closer than 1650' to any well drilling or producing from the same pool. (Order 39-79.)	None
CAT CREEK					
Kootenai (L. Cret.) (3 sands) (Shut-in)	33 2	Structural- Strat.	Water Drive	220' from lease or property line, 440' from every other well in same formation. (Order 17-55.) Five separate producing areas, East, Antelope, Mosby, West and Landheim Domes.	Three Kootenai, two Ellis, and one Amsden waterflood in progress. (Orders 17-56, 18-59, 13-62, 8-68, 38-70, 11-71.) Water from Third Cat Creek sand. Waterflood modified. (Order 29-74.)
Morrison (U. Jur.) (Shut-in)	2	Structural- Strat.	Water Drive		
Ellis (U. Jur.)	18	Structural	Depletion- Water Drive		
Amsden (Penn.)	2	Structural- Strat.	Water Drive	State-wide.	
CEDAR CREEK					
Judith River (U. Cret.) Gas (Shut-in)	73 8	Structural	Volumetric	1200' from legal subdivision line, 2400' from every other well in same formation. (Order 33-54.)	None
Eagle (U. Cret.) Gas (Shut-in)	57 2	Structural	Volumetric	320-acre spacing units, Wells in center of NW¼ and SE¼ of each section with 200' topographic tolerance. (Order 1-61.) Field extension (Order 23-76.)	None
CHAIN LAKES					
Eagle (U. Cret.) (Shut-in)	2 2	Structural	Volumetric	State-wide.	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
CHARLIE CREEK Nisku (Dev.) Duperow (Dev.)	1 1	Structural Structural	Water Drive Water Drive	320-acre spacing units, either east-west or north-south at option of operator, located no closer than 660' from spacing unit boundary and no closer than 1650' from another producing well. Spacing units may not cross section lines. (Order 66-76.)	None
CHELSEA CREEK Nisku (Dev.) (Abandoned)	1	Structural	Water Drive	State-wide.	None
CHERRYPATCH Eagle (U. Cret.) (Shut-in)	1	Structural	Volumetric	State-wide.	None
CHINOOK, EAST Eagle (U. Cret.)	3	Structural-Strat.	Volumetric	State-wide.	None
CHIP CREEK Eagle-Virgelle (U. Cret.)	2	Structural-Strat.	Volumetric	160-acre spacing units: Location no closer than 660' from spacing unit boundary. (Order 89-76.)	None
CLARK'S FORK Frontier (U. Cret.) (Shut-in)	1	Structural-Strat.	Depletion	330' from quarter-quarter section line, 1320' between wells with 75' topographic tolerance. (Order 17-54.)	None
CLARK'S FORK, NORTH Lakota (L. Cret.) Gas & Oil	2	Structural-Strat.	Volumetric	160-acre quarter section spacing with location no closer than 660' from spacing unit boundary. (Order 23-75.)	None
CLARK'S FORK, SOUTH Greybull (L. Cret.) Oil & Gas	2	Structural-Strat.	Depletion-Water Drive	160-acre spacing, location no closer than 330' from quarter section line or 1320' from any other well.	None
CLEAR LAKE Red River (Ord.) Mission Canyon (Shut-in)	7 2 1	Structural	Water Drive	State-wide.	None
COAL COULEE Eagle (U. Cret.) Gas	1	Structural-Strat.	Volumetric	One well per governmental section, to be located no closer than 990' from section line and only one well permitted per formation (Order 25-78.) Amendment to (Order 25-78.) provides 320-acre spacing units within certain sections to be designated by the operator. Well to be located no closer than 990' to unit boundary. (Order 36-79.)	None
COAL RIDGE Mission Canyon (Miss.)	1	Structural	Water Drive	State-wide.	Produced water injected into the Dakota formation (Order 81-A-79.)
COLORED CANYON Red River (Ord.)	1	Structural-Strat.	Water Drive	State-wide.	None
CONRAD BUTTE (See Ledger Field)					
CONRAD SOUTH Dakota (L. Cret.) (Shut-in)	2 2	Strat.	Depletion	10-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-62, 31-63.)	None
COW CREEK Charles (Miss.)	1	Structural	Water Drive	80-acre spacing units, direction at option of operator but wells to be in SW¼ and NE¼ of each quarter section. (Order 11-69.)	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
COW CREEK, EAST Kibbey (Miss.)	11	Structural	Water Drive	40-acre spacing units consisting of quarter-quarter section with permitted well to be at center with 150' topographic tolerance. (Order 35-74.)	Produced water disposed into Dakota formation. (Order 30-A-75 and 61-A-76.)
CRANE Red River (Ord.) Duperow (Dev.)	1 (Shut-in) 1	Structural-Strat.	Water Drive	320-acre spacing units consisting of one half of a governmental section with well location to be no closer than 660' from unit boundary and no closer than 1650' to any well drilling or producing from the same pool (Order 40-79.)	None
CULBERTSON Red River (Ord.)	2	Structural-Strat.	Depletion-Water Drive	State-wide in part. Unitized as to SE¼ of Section 32, SW¼ of Section 33, N½NW¼ of Section 4, and N½NE¼ of Section 5. (Order 29-70.)	Produced water disposed into Red River formation. (Order 13-A-72.)
CUPTON Red River (Ord.)	10 (Shut-in) 1	Structural-Strat.	Water Drive	160-acre quarter section spacing units. Location no closer than 660' from spacing unit boundary. (Order 4-72.)	None
CUT BANK Kootenai (L. Cret.) Oil & Gas (Shut-in) Madison (Miss.) Oil & Gas (Gas only) (Shut-in) Cut Bank (L. Cret.) Gas (Shut-in) Sunburst (L. Cret.) Gas Moulton (L. Cret.) Gas	859 327 36 48 165 6 5 4	Strat. Strat. Strat.	Depletion Water Drive Depletion Depletion	(Kootenai formation includes Moulton, Sunburst, and Cut Bank sands.) Oil: 330' from legal subdivision line. 650' between wells in same formation 5-spot on 40-acre tract permitted. 75' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision, 2400' between wells in same formation. 75' topographic tolerance. (Order 10-54.) Sections 20, 29, and 32 of Township 36 North, Range 4 West spaced 320-acres (N½ & S½.) (Order 26-70.) *320-acre spacing units for gas; (Cut Bank) units; (E½ & W½) wells to be located no closer than 330' from legal subdivision line nor less than 2400' from drilling or producible well producing from same reservoir. (Orders 82-76, 6-77.) Field extension (Order 3-79.)	There are 18 waterfloods in progress. Water from Eagle and Madison, or produced. Produced water disposed into Madison formation. (Orders 22-A-74, 55-A-77.)
DAGMAR Red River (Ord.)	2	Structural	Water Drive	State-wide.	None
DARLING (Included as part of Cut Bank Field)					
DEAN DOME Greybull (L. Cret.) Gas Oil	(Shut-in) 1 1	Structural Structural	Water Drive Water Drive	State-wide. Oil ring below gas cap.	None
DEER CREEK Interlake (Sil.)	1	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections. Well location in NE¼ and SW¼ of each quarter section with 75' topographic tolerance. (Orders 23-55 & 14-59.) Commingling of production permitted upon approval of Board Petroleum Engineer. (Order 18-63.)	Excess produced water is disposed into Dakota and Lakota formations. (Orders 6-56 & 3-58.) Two Silurian wells shut-in.
DELPHIA Amsden (Penn.)	1	Structural	Water Drive	State-wide.	None
DEVIL'S BASIN Heath (U. Miss.)	1 (Shut-in) 3	Structural	Depletion	State-wide.	None
DEVON Blackleaf (U. Cret.) Gas Kootenai (L. Cret.) Oil	(Shut-in) 21 Depleted	Strat. Strat.	Volumetric Depletion	State-wide. State-wide.	None None
DEVON, SOUTH Bow Island (L. Cret.) Gas	1 (Shut-in) 10	Strat.	Volumetric	Drilled on state-wide spacing. Unitized for primary production. (Order 28-71, corrected.)	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
DIVIDE					
Ratcliffe (Miss.)	1	Structural	Water Drive	State-wide.	None
Mission Canyon (Miss.)	1				
DRY CREEK					
Eagle (U. Cret.) Gas	1	Structural-	Volumetric	State-wide.	None
Judith River (U. Cret.) (Shut-in)	2	Strat.		Field re-delineated. (Order 8-70.)	
Frontier (U. Cret.) Gas	9	Structural	Volumetric	Six additional gas storage wells, west end of structure.	
(Shut-in)	2				
Greybull (L. Cret.) Gas	2	Structural-	Volumetric-		
Greybull (L. Cret.) Oil	6	Strat.	Depletion		
(Shut-in)	1				
DRY CREEK MIDDLE					
Frontier (U. Cret.) Gas	1	Structural-	Volumetric	320-acre spacing units consisting of two adjacent governmental quarter sections lying N-S or E-W at operator's option with permitted well no closer than 660' from spacing boundary. (Order 25-75.)	None
Lakota (L. Cret.) Gas (Shut-in)	1	Strat.			
DRY CREEK, WEST					
Greybull (L. Cret.) Oil & Gas (Gas)	1	Structural-	Volumetric	160-acre spacing units; well location anywhere in spacing unit but no closer than 660' from unit boundary. (Order 43-78.)	None
(Shut-in)	1	Strat.	Depletion		
DRY CREEK (Shallow Gas)					
Judith River (U. Cret.)	2	Structural	Volumetric	160-acre spacing units; (all formations capable of producing gas from the top of the Cody to the surface). One well per horizon per spacing unit to be located no closer than 660' from unit boundary. (Order 54-76.)	None
Eagle (U. Cret.)	1	Structural-	Volumetric		
		Strat.			
Virgelle (U. Cret.)	1				
DUNKIRK, NORTH					
Bow Island (L. Cret.) Gas	12	Strat.	Water Drive	One well per governmental section per zone or horizon. Each producing well to be located anywhere within section but no closer than 990' feet from section line. (Order 25-77.) Field enlargement. (Order 64-78.)	None
DWYER					
Ratcliffe (Miss.)	10	Structural-	Water Drive-	160-acre spacing units; well location in center of SE 1/4 of spacing units with 175' topographic tolerance. (Orders 25-60, 29-61.)	Produced water disposed into Dakota formation. (Order 26-63.)
(Shut-in)	5	Strat.	Volumetric		Waterflood. (Order 20-68.)
EAGLE					
Mission Canyon (Miss.)	3	Structural	Water-Drive	State-wide.	None
EAGLE SPRING					
Bow Island (L. Cret.) Gas	2	Structural	Depletion	One well per governmental section per zone, located anywhere but no closer than 990' from section line for all gas zones above the top of the Kootenai. (Order 4-78.) Commingling of Swift and Sunburst permissible (Order 19-79).	None
EAST KEITH & KEITH					
Bow Island (L. Cret.) Gas	7	Structural	Water Drive	State-wide, except unitized portions spaced by (Order 22-62.) Pooling (Order 19-66.)	None
(Shut-in)	1				
Blackleaf (L. Cret.) Gas	16				
Sawtooth (Jur.) Gas	6				
(Shut-in)	1				
ELK BASIN (Mont. Portion)					
Frontier (U. Cret.)	11	Structural	Gravity	State-wide spacing is waived within Unit Area. (Order 10-61.) Gas to Elk Basin gasoline plant.	Frontier: Water injection (Order 1-72.) Embar - Tensleep pressure maintenance by crestal gas injection. Waterflood approved in 1966. (Order 5-66.) Madison: Water Injection. (Order 17-61.)
(Shut-in)	7		Drainage		
Embar-Tensleep (Perm., Penn.)	18	Structural	Gravity		
Oil and Gas	13		Drainage		
(Shut-in)					
Madison (Miss.)	25	Structural	Water Drive		

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
ELK BASIN, NORTHWEST					
Frontier (U. Cret.)		Structural	Depletion	Spacing waived within unitized portion except that bottom of hole be no closer than 330' from unit boundary and there be at least 1320' surface distance between wells in same formation; 75' topographic tolerance. (Orders 43-63, 28-64.) Gas to Elk Basin gasoline plant.	Frontier: Waterflood in progress. Embar - Tensleep: Waterflood. (Order 3-67, 6-74.) Madison, produced water.
(Shut-in)	7				
Embar-Tensleep (Perm., Penn.)	3	Structural	Gravity		
Oil and Gas			Drainage		
Madison (Miss.)	1	Structural	Water Drive		
(Shut-in)	2				
ENID, NORTH					
Red River (Ord.)	2	Structural-Strat.	Water Drive	Spaced for one well field, NE¼ of Section 10 and NW¼ of Section 11, T-23N R-54E (Order 45-79.)	None
ETHRIDGE AREA					
Bow Island (L. Cret.) Gas (Shut-in)	3	Strat.	Water Drive	State-wide, except two wells by (Order 28-65.)	
Swift (U. Jur.) Gas	5	Strat.	Water Drive		
(Shut-in)	2				
FAIRVIEW					
Winnepegosis (Dev.) Oil & Gas	3	Structural	Water Drive	160-acre spacing unit. Well location anywhere in spacing unit but no closer than 660' from unit boundary. (Orders 48-65, 1-67, 43-67, 44-67.) Gas to Fairview plant.	Northwest part of field unitized for gas injection. Gas from Fairview and Brorson fields. (Order 11-70.) Salt water disposal into Dakota. (Orders 9-A-71, 24-A-71.)
Red River (Ord.) Oil & Gas	4	Structural	Water Drive		
(Shut-in)	3				
Mission Canyon (Miss.) (Shut-in)	1	Structural	Water Drive		
FERTILE PRAIRIE					
Red River (Ord.)	1	Structural-Strat.	Water Drive	80-acre spacing units consisting of north-south rectangular units. Well location in NW¼ and SE¼ of quarter section with 75' topographic tolerance. (Orders 3-56, 7-62.)	None
FITZPATRICK LAKE					
Bow Island (U. Cret.)	4	Strat.	Depletion	One well per governmental section located no closer than 990' from section line for all gas zones above the top of the Kootenai. (Order 31-79.)	None
Sunburst (L. Cret.)	1				
FLAT COULEE					
Bow Island (L. Cret.) Gas	3	Structural	Depletion	330' from boundary of legal subdivision and 1320' from other wells in same reservoir. (Order 16-55.)	Waterflood unit and redelineation approved for Swift sandstone. (Orders 13-71, 17-A-71, 22-71.)
(Shut-in)	1	Strat.			
Dakota (L. Cret.) Gas	2	Strat.	Depletion	State-wide, exception. (Order 11-66.)	
Swift (Jur.) Gas	1	Strat.	Depletion		
Swift (Jur.) Oil	21	Strat.	Depletion	40-acre spacing units. Well in center of spacing unit with 150' topographic tolerance. (Orders 16-62, 19-63.)	
(Shut-in)	1	Strat.	Depletion		
Sawtooth (Jur.) Gas	1	Strat.	Depletion	State-wide.	
(Shut-in)	1				
FLAT COULEE, EAST					
Sawtooth (M. Jur.)	1	Structural	Water Drive	State-wide.	None
FLAT LAKE					
Nesson (Miss.)	(Shut-in)	1	Strat.	160-acre spacing units; well location in center of NE¼ of quarter section with 200' topographic tolerance. Wells no closer than 961' to North Dakota state line and no closer than 1600' to Canadian line. (Orders 10-65 amended, 43-65, 23-66, 33-66.)	Excess salt water disposed into Muddy, Dakota, or Lakota formations. (Orders 39-64, 39-66.) Unit operation for eastern part of field. (Order 7-71.) Unit operation for western part of field. (Order 32-74.)
Ratcliffe (Miss.)	51	Structural-Strat.	Partial		
(Shut-in)	3		Water Drive		
FLAT LAKE, SOUTH					
Ratcliffe (Miss.)	4	Structural-Strat.	Partial	Same as Flat Lake spacing. (Order 2-67.)	Excess salt water disposed into Muddy, Dakota, or Lakota. (Order 19-67.)
(Shut-in)	2		Water Drive		
FORT GILBERT					
Red River (Ord.)	2	Structural	Depletion	State-wide.	None
(Shut-in)	1		and Water Drive		
Mission Canyon (Miss.)	1				
FOUR MILE CREEK					
Red River (Ord.)	1	Structural	Depletion	320-acre spacing units. (Order 43-75.)	None
FOUR MILE CREEK, WEST					
Red River (Ord.)	3	Structural	Depletion	State-wide.	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
FOX CREEK Stony Mtn. (Ord.)	1	Structural	Depletion	State-wide.	None
FOX CREEK, NORTH Mission Canyon (Miss.)	2	Structural	Depletion	State-wide.	None
FRANNIE (Mont. Portion) Tensleep (Penn.)	1	Structural	Comb. Water Drive and Gravity Drainage	10-acre spacing units; well location in center of each unit with 100' topographic tolerance. (Order 35-63.)	Unitized for waterflood of Phosphoria-Tensleep formations using produced fluids. (Order 21-70.)
FRED & GEORGE CREEK Sunburst (L. Cret.) Oil & Gas (Shut-in)	30 3	Strat.	Depletion	Oil: 40-acre spacing units; well location in center of unit with 250' topographic tolerance. (Orders 29-63, 1-65.) State-wide. Order 29-63 amended by (Order 48-77.)	Sunburst waterflood initiated July, 1970, using water from Madison, (Order 13-70) and Eagle water. (Order 27-71.)
Swift (U. Jur.) Oil & Gas (Shut-in)	11 2	Strat.	Depletion		
Bow Island (L. Cret.) Gas	1	Structural	Depletion		
FRESNO Eagle-Virgelle (U. Cret.) Gas (Shut-in)	6 1	Structural-Strat.	Volumetric	640-acre spacing units, wells located no closer than 990' from unit boundary. One well may be drilled within each spacing unit for each producing horizon within the spacing unit. (Order 14-76.)	None
FROG COULEE Red River (Ord.)	1	Structural	Water Drive	320-acre spacing units; wells to be located no closer than 660' from the unit boundary. (Order 55-79.)	None
FROID, SOUTH Red River (Ord.)	1	Structural Strat.	Depletion	State-wide.	None
FT. GILBERT Red River (Ord.)	3	Structural-Strat.	Depletion	State-wide.	None
GAGE Amsden (Penn.)	1	Structural	Water Drive	State-wide.	None
GAS CITY Red River (Ord.) (Shut-in)	11 11	Structural	Depletion-Water Drive	80-acre spacing units consisting of E½ and W½ of quarter sections; well location in NW¼ and SE¼ of quarter section; 150' topographic tolerance. Spacing waived and state-wide Rules 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are waived in unitized portion of field. (Order 29-62.)	Excess produced water disposed into Judith River formation. (Orders 32-61, 20-64.) Waterflood using produced water and Madison water. (Order 16-69.) Produced water disposal into Charles "B" formation. (Order 90-A-79.)
GETTYSBURG Mission Canyon (Miss.)	1	Structural	Depletion	State-wide.	None
GIRARD Red River (Ord.)	1	Structural-Strat.	Depletion-Water Drive	State-wide.	None
GLENDIVE Red River (Ord.) Oil & Gas (Shut-in)	15 1	Structural-Strat.	Depletion-Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections; wells located in center of NE¼ and SW¼ of each quarter section with 75' topographic tolerance. (Orders 27-55, 19-62, 58-62, 20-66)	Excess produced water disposed into Swift, Dakota and Judith River formations. (Orders 16-56, 16-63, 40-A-70, 7-A-72.)
GOLD BUTTE Bow Island (L. Cret.) Gas	2	Structural	Water Drive	640-acre spacing, well location any quarter-quarter section cornering on center of section. (Order 26-59.) Amended field boundary. (Order 43-77.)	None
GOLDEN DOME Eagle (U. Cret.) Gas (Shut-in)	2	Structural-Strat.	Water Drive	160-acre spacing; 660' from spacing unit boundary. (Order 15-72.)	None
Greybull (L. Cret.) Oil (Shut-in)	2	Strat.	Depletion		

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
GOOSE LAKE					
Ratcliffe (Miss.) Oil & Gas (Shut-in)	31 4	Structural- Strat.	Partial Water Drive	Unitized. (Order 17-72.) Reduced field area; (Order 29-77.) Unit production curtailment; (Order 45-77.)	Excess produced water disposed into Mission Canyon and Dakota formations. (Orders 12-64, 14-66, 12-68.)
GRABEN COULEE					
Sunburst (L. Cret.) Gas (Shut-in)	17 1	Structural- Strat.	Depletion	40-acre spacing units; well location no closer than 330' from legal subdivision.	Excess produced water disposed into Cut Bank formation. (Order 45-A-75.)
Cut Bank (L. Cret.) (Shut-in)	15 5	Structural- Strat.	Depletion	(Cut Bank and Madison) Oil: 330' from boundary of legal subdivision and 650' from any other well in same reservoir and on same lease. 75' topo- graphic tolerance. (Order 73-62.)	
Cut Bank-Madison (Dual)	2	Structural- Strat.	Depletion		
GRANDVIEW					
Bow Island (L. Cret.) Gas (2 Zones) (Shut-in)	5 6	Structural	Unknown	320-acre spacing units aligned in a north-south direction; well locations no closer than 660' to a spacing unit boundary. (Order 49-67.) Dual com- pletion with Bow Island.	None
Madison (Miss.) Gas (Shut-in)	1	Structural	Unknown		
GRANDVIEW, EAST					
Swift (Jur.)	2	Structural	Water Drive	State-wide.	None
GUMBO RIDGE					
Tyler (L. Penn.) (Shut-in)	4 2	Structural- Strat.	Unknown	State-wide.	3rd Cat Creek water for waterflood (Order 54-79.)
GYPSY BASIN					
Sunburst (L. Cret.) Oil & Gas (Shut-in)	7 5	Structural- Strat.	Comb. Water Drive and Depletion	330' from lease lines and 660' between wells in same formation. Only two wells per quarter- quarter section. (Order 7-66.) Same as Sunburst.	Order 6-64 permits injection of excessive gas (produced with oil) into the Sunburst gas cap.
Swift (U. Jur.) (Shut-in)	1	Structural- Strat.	Comb. Water Drive and Depletion		
Sawtooth-Madison (Jur. & Miss.) Oil & Gas (Shut-in)	3	Structural- Strat.	Comb. Water Drive and Depletion	(Sawtooth-Madison) Oil: 40-acre spacing units; wells no closer than 330' from lease line. (Order 7-66.) (Sawtooth-Madison) Gas: 160-acre spac- ing units; well locations in center of any quarter- quarter section in each 160-acre unit, 2340' be- tween gas wells. 150' topographic tolerance (Order 13-59.)	None
Gas (Shut-in)	6 2				
HARDIN					
Frontier (U. Cret.) Gas (Shut-in)	33 15	Strat.	Volumetric	State-wide.	Water disposal into Red River. (Order 20-A-70.)
HARDPAN					
Bow Island (L. Cret.) Swift (Jur.) (Shut-in)	1 1	Structural	Unknown	State-wide.	None
HAY CREEK					
Mission Canyon (Miss.)	1	Structural	Depletion	State-wide.	None
Red river (Ord.) (Shut-in)	1 1	Structural	Volumetric Water Drive	320-acre spacing, any two adjacent quarter sections, direction to be determined by operator. Location no closer than 660' from unit boundary. (Orders 15-69, 27-73.) Gas to Brorson plant.	
HAYSTACK BUTTE					
Eagle-Virg. (U. Cret.) Bow Island (L. Cret.) (Shut-in)	7 1	Structural- Strat.	Volumetric	640-acre spacing units; one well per each pro- ducing horizon above Kootenai. Location no closer than 990' from spacing unit boundary. (Order 85-76.) Amended field boundary. (Order 37-77.)	None
Kootenai (L. Cret.)					
HIAWATHA					
Tyler (L. Penn.) (2 sands)	4	Structural- Strat.	Depletion	State-wide.	None
HIBBARD					
Amsden (Penn.)	1	Unknown	Water Drive	State-wide.	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
HIGH FIVE Tyler (Penn.) (Shut-in)	18 2	Structural- Strat.	Water Drive	State-wide.	Water disposed into Dakota and Stensvad formations (Orders 33-A-77, 70-A-78.)
HIGHVIEW Madison (Miss.) Oil & Gas (Shut-in)	3 2	Structural	Water Drive	160-acre spacing units, located no closer than 660' from spacing unit boundary. 150' topographic tolerance. (Order 84-76.)	None
HORSE CREEK Swift (U. Jur.)	1	Structural	Water Drive	State-wide.	None
HOWARD COULEE Tyler (L. Penn.) (Shut-in) Piper Line (M. Jur.)	2 1 2	Structural- Strat. Strat.?	Unknown Unknown	State-wide.	Produced water injected into the Piper formation. (Order 69-A-78.)
IVANHOE DOME Amsden (L. Penn.) (Shut-in) Tyler (L. Penn.) (Shut-in)	6 1 3 1	Structural- Strat. Structural- Strat.	Water Drive Depletion	40-acre spacing unit for production from any one common formation; well location in center of unit with 200' topographic tolerance. (Order 7-60 and 13-56.)	Waterflood of Tyler B & C sands discontinued. Water disposal into Tyler "A". (Order 8-A-78.)
JIM COULEE Tyler (L. Penn.) (Shut-in)	14 1	Structural Strat.	Depletion Water Drive	Unitized (Order 18-72.) No well closer than 330' from unit boundary.	Waterflood; produced and Third Cat Creek water.
KATY LAKE, NORTH Red River (Ord.)	2	Structural	Depletion, Water Drive	State-wide.	None
KEG COULEE Tyler (Penn.) Oil & Gas (Shut-in)	15 2	Strat.	Depletion	40-acre spacing in southwest portion of field except that spacing is waived in unitized portion. (Orders 3-64, 4-64, 23-64.) 80-acre spacing in remainder of field with variable pattern. (Orders 11-60, 28-62.) (40-acre spacing: W½ E½ and W½ Sec. 35-11N-30E; NW¼ Sec. 2-10N-30E). (Order 23-72.) Topographic tolerance varies from 100' to 250' (Orders 11-60, 4-64, 23-64.) Buffer zone waived. (Order 16-65.) Field Reduction (Order 2-76.) (Orders 11-60, 4-64, and 2-76) Amended by: (Orders 58-76.)	Three waterflood units. (Orders 3-64, 28-66, 10-69, 14-69.) Madison water injected.
KEG COULEE, NORTH Tyler (Penn.)	6	Strat.	Depletion	40-acre spacing units; well location in center of spacing unit with 150' topographic tolerance. (Order 46-64.) Buffer zone waived. (Order 16-65.) Field Area amended (Order 59-76.)	None
KEITH (see East Keith)					
KELLEY Tyler (Penn.)	3	Strat.	Depletion	State-wide. 250' topographic tolerance. (Order 15-67.)	Waterflood using Third Cat Creek water. (Orders 8-69, 51-76.)
KENNEDY COULEE Sawtooth (M. Jur.) (Shut-in)	1	Structural	Depletion	State-wide.	None
KEVIN-SUNBURST Sunburst (L. Cret.) Oil & Gas (Shut-in) Swift (U. Jur.) Sun River (Miss.) Oil & Gas Gas only (Shut-in) Nisku (Dev.) Gas	38 219? 1 459 49 ? 1	Strat. Structure Structure- Strat.	Depletion Depletion	9 wells per 40-acre tract; only 3 wells on any side of tract set back at least 220' from line. Field delineated by (Orders 8-54, 28-55.) 640-acre spacing units; location no closer than 990' from spacing unit boundary. (Order 83-76.)	There are four water floods in operation using Madison water. (Orders 9-64, 17-64, 30-64, 36-65, 29-71.) Sunburst water disposed into Madison (Order 50-76.) None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
KEVIN, SOUTHWEST					
Bow Island (L. Cret.) Gas	1	Structure- Strat.	Depletion	320-acre one-half section spacing units lying N-S or E-W at operator's option. Location to be no closer than 660' from unit boundary for Sunburst-Swift formations and all formations above the top of the Kootenai. (Orders 26-78, 47-78, 48-78.) Field enlargement. (Order 96-79.)	None
Sunburst (L. Cret.) Gas	1				
Swift (U. Jur.) Gas	1				
Bow Island-Swift	2				
Bow Island-Sunburst	2				
KICKING HORSE					
Bow Island (L. Cret.) Gas	9	Structural	Depletion	320-acre spacing with location permitted no closer than 660' from unit boundary and 990' from field boundary. (Order 17-74.) One 640-acre unit. (Order 17-74.)	None
Sawtooth (Jur.) Gas	1				
Sunburst (L. Cret.) (Shut-in)	1	Strat.	Depletion		
KINCHELOE RANCH					
Tyler (Penn.)	2	Strat.	Depletion	State-wide.	None
KINYON COULEE					
Bow Island (L. Cret.)	4	Structural Strat.	Volumetric	State-wide.	None
LAIRD CREEK					
Swift (U. Jur.) Oil & Gas	9	Strat.	Depletion	State-wide.	Unitized and waterflood authorized in Swift for oil production. (Order 25-74.) Commenced 2-25-77.
LAKE BASIN					
Telegraph Creek (U. Cret.) Gas	6	Structural-	Volumetric	160-acre spacing units to base of Virgelle; wells no closer than 660' from unit boundary and 990' from field boundary. Commingling permitted after administrative approval. (Order 9-74.) Gas from Telegraph Creek pooled. (Order 29-75.)	None
Eagle-Virgelle (U. Cret.) Gas	8	Strat.			
LAKE BASIN, NORTH					
Eagle, Frontier (U. Cret.) Gas	2	Structural	Unknown	640-acre spacing units consisting of one section. Locations 990' from section line. (Order 3-74.)	None
Claggett (Shut-in)	5				
Eagle-Virg. (U. Cret.) Gas	1	Structural	Unknown	160-acre spacing units located no closer than 660' from quarter section lines within restricted Sections. (Order 63-76.)	None
(Shut-in)	1				
LAKESIDE					
Eagle (U. Cret.) (Shut-in)	1	Structural	Volumetric	State-wide.	None
LANDSLIDE BUTTE					
Sun River (Miss.)	1	Unknown	Water Drive	State-wide.	None
(Shut-in)	2				
LAREDO					
Eagle (U. Cret.) (Shut-in)	21	Unknown	Depletion	320-acre spacing with unit consisting of one-half section lying N-S or E-W at operator's option after administrative approval. Well no closer than 990' from unit boundary. (Order 8-74.)	None
Judith River (U. Cret.) (Shut-in)	1				
LAUREL					
Dakota (L. Cret.)	1			10-acre spacing unit. Well location to be in center of spacing unit with 75' topographic tolerance. (Order 15-62.)	Muddy Gas injection into the Dakota approved. (Order 85-79.)
(Shut-in)	19				
LEARY					
Muddy (L. Cret.)	5	Structural- Strat.	Depletion	80-acre spacing with locations in NE¼ and SW¼ of each quarter section, 200' topographic tolerance. (Orders 12-69, 19-70.) Reduced Field Area (Order 68-76.)	None
LEDGER					
Bow Island (L. Cret.) Gas	25	Structural	Volumetric	640-acre spacing: one well per section per Sand to be located no closer than 990' from section line. Permissible to commingle two or more Sands, subject to administrative approval by the Petroleum Engineer. (Order 53-77.)	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
LEROY					
Judith River-Eagle	22	Unknown	Depletion	320-acre spacing with unit consisting of one-half section lying N-S or E-W at operator's option after administrative approval. Well no closer than 660' from unit boundary and 990' from field boundary. (Order 19-75.)	None
Virgelle (U. Cret.) Gas (Shut-in)	8	Unknown	Depletion		
LISCOM CREEK					
Shannon (U. Cret.) Gas	7	Structural- Strat.	Depletion	Spacing, one well per 640 acres, with location no closer than 990' from section boundary. (Order 20-72.)	None
(Shut-in)	1				
LITTLE BEAVER (Mont. Portion)					
Red River (Ord.)	23	Structural	Comb. Depletion and Water Drive	Spacing waived and General Rules 213 (Deviation) 218 (Commingle) and 219 (Dual Completion) are are suspended until present Unit Agreement becomes inoperative. (Order 41-62.)	Waterflood of the Red River was commenced in August, 1967. (Order 3-66.) Minnelusa water.
(Shut-in)	1				
LITTLE BEAVER, EAST					
(Mont. Portion)	11	Structural	Comb. Depletion and Water Drive	Same as for Little Beaver. (Order 42-62.)	Waterflood of the Red River was commenced in April, 1965. (Order 33-64.)
Red River (Ord.) (Shut-in)	5				
LITTLE ROCK					
Blackleaf (L. Cret.) Gas (Shut-in)	1	Structural Strat.	Depletion	320-acre north half and south half spacing units. Well location no closer than 990' from west line of Section 14 and 660' from the remaining unit boundary lines. (Order 40-78.) Field enlargement. (Order 94-79.)	None
Bow Island (L. Cret.)					
LITTLE WALL CREEK					
Tyler (Penn.)	19	Strat.	Depletion Water Drive	State-wide.	Produced water injected into Tyler formation (Order 54-A-77), (Order 63-A-78.)
(Shut-in)	1				
LOOGE GRASS					
Tensleep (Penn.)	1	Structural- Strat.	Water Drive	160-acre spacing units; well locations vary according to areas; 250' topographic tolerance. (Orders 26-64, 26-65.)	None
LOHMAN					
Eagle (U. Cret.)	3	Unknown	Depletion	640-acre spacing; one well per section to be located no closer than 990' from section line. (Order 23-78.)	None
(Shut-in)	1				
LONE BUTTE					
Red River (Ord.)	2	Structural	Unknown	320-acre spacing units with well location at least 660' from unit boundary. Not delineated.	None
LONETREE CREEK					
Red River (Ord.)	9	Structural	Depletion	320-acre spacing, wells 660' from spacing boundary, 2000' between wells. (Order 29-72.)	None
(Shut-in)	2				
LONG CREEK					
Madison (Miss.) Charles	1	Structural	Water Drive	State-wide spacing.	None
LONG CREEK, WEST					
Nisku (Dev.)	2	Structural	Water Drive	80-acre spacing units comprised of two contiguous quarter quarter sections which may lie in either one or two governmental sections aligned either North-South, East-West with location to be no closer than 330 feet from unit boundary nor less than 1000 feet from any other producing well. (Order 27-77.)	None
LOOKOUT BUTTE					
(Includes Coral Creek Unit)	3	Structural	Water Drive	State-wide spacing.	Water disposal into Madison. (Order 68-62.)
Madison (Miss.) (Shut-in)					
Interlake, Red River (Sil.-Ord.)	28	Structural	Comb. Depletion and Water Drive	160-acre spacing; well location in center of SE¼ of each quarter section with 150' topographic tolerance. (Order 21-62.) Coral Creek Unit not subject to spacing rules. Redelineated per (Order 7-63.)	Waterflood of Silurian-Ordovician approved in 1966. (Order 35-66.) Water from Minnelusa.
(Shut-in)	5				

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
LOWELL Red River (Ord.)	1	Structural	Water Drive	320-acre spacing units consisting of two contiguous governmental quarter sections which may lie in either one or two governmental sections. Wells to be located no closer than 660' from unit boundary or closer than 1650' to well producing from the same horizon. (Order 104-79.)	None
MARIAS RIVER Bow Island (L. Cret.)	9	Structural	Depletion	One well per section per horizon above the top of the Kootenai. Location to be no closer than 990' from section line. (Order 18-78.)	None
MASON LAKE Lakota (L. Cret.)	12	Structural	Water Drive	80-acre spacing units consisting of 1/2 of a quarter section lying in either E-W or N-S direction; well location in center of the NE and SW quarter-quarter sections of each quarter section with 75' topographic tolerance. (Order 35-78.) Amending (Order 35-78) for certain lots designated as spacing units. (Order 66-78.) Field enlargement (Order 16-79.)	None
MASON LAKE, NORTH Amsden (Penn.)	1	Structural	Water Drive	State-wide.	None
McCABE Ratcliffe (Miss.)	1	Structural- Strat.	Depletion	320-acre spacing, any two adjacent quarter sections to be determined by operator. No less than 1650' between wells producing from same horizon. (Order 38-78.)	None
MEDICINE LAKE Red River (Ord.)	3	Structural	Water Drive	320-acre spacing units to comprise of any two contiguous governmental quarter sections in either one or two governmental sections. Well to	None
Winnipegosis (Dev.)	1	Structural	Comb.		
Winnipegosis-Interlake (Dev.-Sil.)	1	Structural	Depletion and Water Drive		
Ratcliffe-Midale (Miss.)	1	Structural	Water Drive	be located no closer than 660' from unit boundary nor closer than 1650' to any well producing from the same formation (Order 50-79.)	
MELSTONE Tyler (Penn.)	9	Structural- Strat.	Depletion	State-wide.	None
(Shut-in)	3				
MIDDLE BUTTE Bow Island (Cret.) Gas	2	Structural	Volumetric	Orders (3-60, 21-75) Amended to delineated field extension and 320-acre spacing units consisting of the E 1/2 & W 1/2 of each section; well location no closer than 990' from the section line and 660' from the interior boundary. (Order 47-77.)	None
(Shut-in)	3				
MINERAL BENCH Duperow (Dev.)	1	Structural	Water Drive	State-wide.	Water disposal into Dakota-Lakota per (Order 18-65.)
MINERS COULEE Sunburst (L. Cret.) Oil	2	Strat.	Depletion	Oil: 40-acre units consisting of quarter-quarter sections; well location no closer than 330' from lease or property line and 660' from any other well (Order 9-66.) Order 9-66 amended to comply with Order 5-74.	None
(Shut-in)	4				
Swift (U. Jur.) Oil	1	Strat. Strat.?	Depletion Water Drive		
Sunburst-Swift Gas	2			Gas: 160-acre spacing with wells 990' from unit boundary. (Order 5-74.) Sawtooth gas spacing unit. (Order 43-76.) Field redelineation (Order 44-77.)	
Sawtooth (M. Jur.) Gas	1	Strat.	Depletion		
Bow Island (L. Cret.) Gas (Shut-in)	8				

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
MONARCH					
Mission Canyon (Miss.)	2	Structural-Strat.	Water Drive	80-acre spacing units consisting of east and west half of quarter section. Well location in SW¼ and NE¼ of quarter section. Location within 660' square at center of quarter section. (Order 18-61.)	Produced water is disposed into the salt water disposal system for the Pennel Field.
Interlake, Red River (Sil.-Ord.)	14	Structural-Strat.		160-acre spacing units consisting of a quarter section; well location in center of SW¼ of each quarter section with 175' topographic tolerance. (Orders 12-59, 4-63.)	Waterflood initiated 12-1-73. (Order 23-73.)
(Shut-in)	3				
MON OAK WEST					
Madison (Miss.)	Total-32	Structural	Water Drive	320-acre spacing units for Silurian and Ordovician pools. Units to consist of either (N½, S½, E½ or W½) well location to be no closer than 660' to unit boundary or closer than 1650' to any well drilling or producing from same pool. (Order 42-77.)	Produced water injected into Dakota-Lakota. (Order 49-A-78.)
Dawson Bay (Dev.)		Structural	Comb.		
Winnipegosis (Dev.)			Depletion and		
Interlake (Sil.)			Water Drive		
Stony Mtn. (Ord.)					
Red River (Ord.)				320-acre spacing units for Madison and Devonian formations. Units to consist of either (N½, S½, E½ or W½) well location to be no closer than 660' from a quarter section line or section line and no closer than 1650' to any well drilling or producing from same pool. (Orders 23-77, 33-78, 51-79.)	
MOSBY					
(See Cat Creek)	3	Structural-Strat.	Water Drive	Listed as part of Cat Creek	Waterflood, 2nd Cat Creek sand. (Order 8-68.) Water flood in Amsden. (Order 11-71.)
(Shut-in)	4				
MOSSER					
Greybull (L. Cret.)	12	Structural	Water Drive	Spacing waived. Future development requires administrative approval of the Board. (Order 27-62.)	None
(Shut-in)	2				
MT. LILLY					
Madison (Miss.) Gas	2	Structural-Strat.	Water Drive	640-acre spacing, well location in approximate center of any of the four quarter-quarter sections adjoining center of section; 250' topographic tolerance. (Order 37-63.)	None
Sunburst (L. Cret.) Gas	1		Depletion		
MUD CREEK					
Amsden (L. Penn.)	(Shut-in)	2	Structural	Water Drive	None
				640-acre spacing unit. Well location anywhere in 160-acre tract in center of each 640-acre well spacing unit. (Order 9-63.)	
NOHLY					
Red River (Ord.)	2	Structural	Volumetric Water Drive	State-wide.	None
NORTH FORK					
Red River (Ord.)	1	Structural	Water Drive	State-wide.	None
Mission Canyon (Miss.)	1	Structural	Water Drive		
NORTH GILDFORD					
Sawtooth (M. Jur.)	(Shut-in)	1	Structural	Unknown	None
				320-acre specified spacing units. One well per unit 660' from boundary, 2640' between wells. (Order 9-58.) Boundary reduction. (Order 38-76.) Field enlargement (Order 9-79.)	
NORTH LAKE BASIN					
(See Lake Basin, North)					
NORTH WILLOW CREEK					
(See Willow Creek, North)					
O'BRIENS COULEE					
Bow Island (L. Cret.)	8	Structural	Volumetric	State-wide.	None
(Shut-in)	1				
OTIS CREEK					
Red River (Ord.)	(Shut-in)	2	Structural	Depletion	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
OTIS CREEK, SOUTH Red River (Ord.)	2	Structural	Depletion	320-acre spacing units; well to be located no closer than 660' to unit boundary. (Order 39-72.) Extended field boundary. (Orders 56-76, 67-76.)	None
OUTLOOK Duperow (Dev.)	1	Structural- Strat.	Water Drive	State-wide.	Produced water is disposed into Dakota and Siluro-Devonian formations. (Orders 16-59, 17-65, 36-66, 9-A-77.) Produced water disposed into Madison formation. (Order 59-A-78.)
(Shut-in)	1				
Winnipegosis (Dev.)	2	Structural- Strat.	Water Drive	State-wide.	
(Shut-in)	1				
Silurian-Devonian	3	Structural- Strat.	Water Drive	160-acre spacing units; well location in center of either SW¼ or NE¼ of each quarter section; 175' topographic tolerance. (Order 19-59A.)	
(Shut-in)	1				
OUTLOOK, SOUTH Winnipegosis	1	Structural	Water Drive	160-acre spacing; permitted wells in either SW¼ or NE¼ of quarter section; 175' topographic tolerance. (Order 19-59A.) Commingling permitted. (Order 45-64.)	Produced water disposed into Muddy and Dakota formations.
OUTLOOK WEST Winnipegosis (Dev.)	1	Structural	Water Drive	160-acre spacing units consisting of quarter sections; permitted wells in either SW¼ or NE¼ with a tolerance of 175'. (Order 7-67.)	Produced water disposed into Dakota formation. (Order 42-66.)
(Shut-in)	1				
OXBOW Red River (Ord.)	1	Structural- Strat.	Water Drive	320-acre spacing consisting of two contiguous governmental quarter sections which may be in one or two governmental sections lying E-W or N-S at operator's option. Location to be no closer than 660' to the unit boundary or closer than 1650' to a well producing from same pool. (Order 7-78.)	None
PELICAN Red River (Ord.)	1	Structural	Water Drive	320-acre spacing units; wells to be located no closer than 660' to any governmental section or quarter section line boundary. (Order 21-79.)	None
PENNEL Mission Canyon (Miss.)	6	Structural	Depletion- Water Drive	80-acre spacing units consisting of east and west half of quarter section; wells located in center of SE¼ and NW¼ of quarter sections with 150' topographic tolerance. (Order 15-61.)	Produced water is being injected into Dakota, Siluro-Ordovician and Madison formations. (Orders 16-60, 46-62, 68-62, 36-63, 13-64.) Waterflood for Siluro-Ordovician approved Nov. 1968. (Order 24-68.)
Siluro-Ordovician Oil & Gas	109	Structural	Depletion- Water Drive	80-acre spacing units on west side and 160-acre spacing units on east side of pool. Wells to be located in SE¼ and NW¼ of each quarter section (80 acres) and in SE¼ of each quarter section on 160-acre spacing. (Orders 1-56, 8-56, 15-61, 20-62, 4-63, 7-63.) Commingling approved. (Order 59-62.)	
(Shut-in)	7				
PETE CREEK Sunburst (L. Cret.) Oil	1	Strat.	Depletion	State-wide.	None
PHANTOM Sunburst (Cret.) Gas	1	Structural	Depletion	*Gas: wells permitted anywhere within the unit but no closer than 990' to the unit boundary.	None
Sunburst (L. Cret.) Oil	3	Strat.	Depletion		
(Shut-in)	1				
Swift (U. Jur.) Gas	2	Strat.	Depletion	*Oil: projected depths greater than 6000' to be located no closer than 660' to the unit boundary. Project depths less than 6000' to be located no closer than 330' to the unit boundary. (Order 48-77.)	
PHANTOM, WEST Sunburst (L. Cret.) Gas	1	Structural	Depletion	One well per spacing unit to be located no closer than 660' to the exterior boundaries of three certain spacing units. (Order 65-78.)	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
PINE					
Mission Canyon (Miss.) Oil & Gas (Shut-in)	2 3	Structural	Water Drive	Spacing and General Rules 213, 218 and 219 are waived within the Pine Unit. 80-acre spacing units outside of unit area; well location in NW¼ and SE¼ of quarter section; 150' topographic tolerance. (Order 37-62) Gas through extraction plant.	A waterflood program for the south area was started in 1959. A waterflood of the north area was approved in 1967. (Orders 13-68, 1-60, 8-62, 32-67.) Produced water injected into Mission Canyon. (Order 10-A-74.)
Siluro-Ordovician Oil & Gas (Shut-in)	99 27	Structural	Depletion- Water Drive		
PINE, EAST					
Red River (Ord.) (Shut-in)	1	Structural	Depletion Water Drive	State-wide.	None
PLEVNA					
Judith River (U. Cret.) Gas (Shut-in)	21 8	Structural	Water Drive	1200' from legal subdivision line; 2400' from other wells in same lease or unit; 75' topographic tolerance. (Orders 34-54, 4-57.)	None
POLICE COULEE					
Bow Island (L. Cret.) (Shut-in)	3	Structural	Depletion	320-acre spacing units; location no closer than 990' from section line and 660' from half section lines. Spacing units to consist of north half or south half, east half or west half at discretion of operator. (Order 53-76.) Extended Field boundaries. (Order 24-77.) Field enlargements. (Orders 20-79 and Order 46-79.)	None
PONDERA					
Sun River (Miss.) Oil & Gas (Shut-in)	288 52	Structural- Strat.	Depletion- Water Drive	Oil: 220' from legal subdivision, 430' from other wells in same reservoir on same lease; 75' topographic tolerance. Porter Bench Extension: 330' from legal subdivision line; 650' from other wells in same reservoir on same lease or unit; 75' topographic tolerance. (Order 9-54.) General Rules 207, 211, 219, 221, 223, and 224 do not apply.	Produced water injected into lower Madison. (Orders 11-56, 15-56, 4-65, 4-66, 20-A-71), (57-A-78), (58-A-78), (62-A-78), (71-A-78.) (29-A-79) (62-A-79) (63-A-79) (64-A-79) (65-A-79.)
PONDERA COULEE					
Sun River (Miss.) (Shut-in)	2 1	Structural	Water Drive	330' from legal subdivision lines or upon a 10-acre spacing pattern; 75' topographic tolerance. (Order 5-62.)	None
POPLAR, EAST					
Madison (Miss.) (Charles & Mission Canyon fms.) (Shut-in)	61 41	Structural	Water Drive	State-wide spacing; field delineated by (Order 7-55.) Re-delineation of field (Order 15-76.)	Unitized in 1955. (Order 7-55.) Excess produced water has been injected into the Dakota Judith River, and Mission Canyon River, and Mission Canyon formations. (Orders No. 1-55, 5-57, 7-57, 14-61, 21-61, 34-61, 10-62, 51-67, 10-A-73.)
Heath (Tyler) (Penn.)	1	Structural- Strat.	Water Drive		
Nisku (Dev.)	1	Structural	Water Drive		
POPLAR NORTHWEST					
Charles (Miss.) (''B'' & ''C'' or McGowan Zone)	16	Structural	Water Drive	80-acre spacing units for all zones in Charles formation consisting of E½ and W½ of each quarter section; permitted wells in NW¼ and SE¼ of quarter section except for certain specified spacing unit tracts. (Orders 18-55 & 26-76.) Commingling approved. (Order 26-76.)	Produced water disposed into Dakota. (Order 61-A-78.)
PRAIRIE DELL					
Bow Island (L. Cret.)	3	Structural- Strat.	Depletion	320-acre spacing units with well location no closer than 660' to spacing unit boundary. (Order 10-76.) Redelineation and amendment to (Order 10-76.) by (Order 28-78.) Field enlargement (Order 24-79.)	None
Sunburst (L. Cret.)	1				
Bow Island-Sunburst, Dual	15				
Bow Island, Swift, Dual	2				
PRAIRE DELL, WEST					
Swift (U. Cret.) Gas	1	Structural- Strat.	Depletion	640-acre spacing unit; well to be no closer than 990' to the spacing unit boundary. (Order 16-78) Amending (Order 16-78) to include all horizons above the Rierdon formation. (Order 54-78.) Field enlargement. (Order 55-78.)	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
PRAIRIE ELK Charles "C" (Miss.) (Shut-in)	1 1	Unknown	Water Drive	State-wide.	None
PRICHARD CREEK Sunburst (L. Cret.) Oil & Gas (Shut-in) Swift (U. Jur.) Oil	3 3 1	Strat. Strat.	Depletion Depletion	Well locations subject to administrative approval.	None. Unitized as to Sunburst for water injection. (Order 7-73.)
PUMPKIN CREEK Shannon (U. Cret.) Gas (Shut-in)	3 5	Strat. Strat.	Depletion	State-wide. Delineated (Order 10-71.)	None
PUTNAM Interlake (Sil.) Red River (Ord.) (Shut-in)	1 4 1	Structural Structural	Volumetric Water Drive Volumetric Water Drive	State-wide.	None. Gas to McCulloch Gas Processing Corp. Brorson Plant.
PUTNAM, EAST Mission Canyon (Miss.) Red River (Ord.)	1 7	Structural Structural	Water Drive Volumetric Water Drive	State-wide.	None
RABBIT HILLS Sawtooth (Jur.) (Shut-in)	2 1	Structural Strat.	Volumetric Water Drive	160-acre spacing unit. Well location 660' from spacing unit boundary. (Orders 17-73, 34-74, 33-76.) Re-delineation (Order 47-76.)	Produced water disposed into Eagle formation. (Order 49-A-75.)
RAGGED POINT Tyler (Penn.) (Shut-in)	24 2	Strat.	Depletion	40-acre spacing units; 75' topographic tolerance. (Order 8-59.) Spacing waived for Tyler "A" sand reservoir within Tyler "A" Sand Unit except no well can be closer than 660' to Unit Boundary. (Order 35-65.)	A waterflood project of the Tyler "A" sand was commenced in February, 1966, using Third Cat Creek water. (Order 35-65.)
RAPELJE Claggett, Eagle, Judith River, Virgelle (U. Cret.)	15 1	Structural- Strat.	Water Drive	160-acre spacing. Wells no closer than 990' to unit boundary. Commingling after administrative approval. (Order 29-73.)	None
RATTLER BUTTE Tyler (Penn.) (Shut-in)	2 1	Strat.	Depletion	State-wide.	None
RATTLESNAKE COULEE Sunburst (L. Cret.) Oil & Gas Bow Island (L. Cret.) Gas (Shut-in)	2 1	Strat.	Depletion	State-wide.	None
RAYMOND Nisku-Duperow (Dev.) Dual Red River-Winnipegosis (Dev.) Dual Winnipegosis (Dev.) Red River (Ord.) Charles (Miss.)	1 1 2 1 4	Structural- Strat.	Depletion Water Drive	320-acre spacing units. Wells 660' from spacing unit boundary. (Order 38-72.) Gas Storage. (Order 50-78.) Field extension-new pool designation (Order 35-79.) (Order 50-78.) amended by (Order 60-79.)	Produced water injected into Dakota formation. (Order 38-A-74.) Produced water injected into Mission Canyon (Order 105-A-79.)
RAYMOND, NORTHEAST Winnipegosis (Dev.) (Dual) Red River (Ord.)	1	Structural- Strat.	Depletion Water Drive	160-acre spacing units. Wells 660' from spacing unit boundary. (Order 12-74.)	None
REAGAN Sun River (Miss.) Oil (Shut-in) Gas	49 19 2	Structural	Gas Cap- Water Drive	State-wide. (Order 17-54.)	A pressure maintenance project utilizing gas injection was started in 1961. (Order 21-60.) Waterflood. (Order 27-72.)
REAGAN, WEST Blackleaf (L. Cret.) Gas Bow Island (L. Cret.) Oil (Shut-in)	1 1	Strat. Structural- Strat.	Depletion Volumetric	State-wide. Injected into Reagan field as secondary recovery agent.	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
REO CREEK					
Cut Bank (L. Cret.) Oil & Gas	7	Strat.	Depletion	40-acre spacing units; wells in center of spacing unit with 75' topographic or obstruction tolerance; spacing and field rules waived for unitized portion. (Orders 16-58, 73-62, 31-64, 5-70.)	Excess produced water injected into Bow Island and Madison. (Orders 22-63, 37-64.) A waterflood project in the Cut Bank sand was initiated in June, 1965, using Madison water.
(Shut-in)	2				
Sun River (Miss.) Oil & Gas	13	Structural	Water Drive		
(Shut-in)	6				
REO FOX					
Nisku (Dev.)	1	Structural	Water Drive	Field consists of one 160-acre spacing unit which straddles the section line. (Order 20-67.)	None
REO ROCK					
Eagle (U. Cret.) Gas	1	Structural-Strat.	Volumetric	Spacing units shall consist of the north half and south half of section with permitted well to be no closer than 990' from exterior section line nor closer than 660' to half section line. (Order 89-79.)	None
REDSTONE					
Winnipegosis (Dev.)	1	Unknown	Water Drive	One well per 160-acre unit, but no closer than 660' from unit boundary.	None
REFUGE					
Red River (Ord.)	1	Structural	Water Drive	State-wide.	None
REPEAT					
Red River (Ord.)	1	Unknown	Water Drive	State-wide.	None
RESERVE					
Winnipegosis (Dev.)	1	Structural-Strat.	Water Drive	160-acre spacing units; permitted well within 1320' square in center of quarter section. Commingling of Red River and Interlake, production permitted on individual well basis. (Orders 34-66, 27-67.)	Excess water injected into Dakota sand. (Order 23-A-67.)
Red River (Ord.)	3	Structural-Strat.	Water Drive		
(Shut-in)	1	Strat.			
RICHEY					
Charles (Miss.)	2	Structural	Water Drive	State-wide. Original 80-acre spacing revoked. (Order 11-73.)	None
RICHEY, SOUTHWEST					
Interlake, Dawson Bay	4	Structural	Depletion	160-acre spacing units; wells no closer than 900' from boundary or spacing unit (Order 25-62.)	A waterflood project in the Interlake and Dawson Bay was started in 1965. (Order 34-65.)
(Sil.) (Dev.) (Shut-in)	2				
RIDGELAWN					
Madison (Miss.)	2	Structural	Water Drive	State-wide.	None
RIPRAP COULEE					
Ratcliffe (Miss.)	2	Structural-Strat.	Depletion	State-wide.	None
ROCKY BOY					
Eagle-Virgelle (U. Cret.)	7	Structural-Strat.	Water Drive	State-wide.	None
(Shut-in)	3				
Judith River (U. Cret.)	3				
ROCKY POINT					
Red River (Ord.)	1	Structural	Volumetric Water Drive	320-acre spacing unit, well to be located no closer than 660' from exterior boundary (Order 22-79.)	None
ROSCOE OOME					
Lakota (L. Cret.)	1	Structural	Water Drive	State-wide.	None
ROSEBUO					
Tyler (L. Penn.)	4	Structural-Strat.	Unknown	State-wide.	None
(Shut-in)	1				
ROUGH CREEK					
Muddy (L. Cret.)	1	Structural-Strat.	Depletion	State-wide. Formerly called Duncan Creek.	None
ROUGH RIDGE					
Eagle (U. Cret.)	1	Structural	Volumetric	State-wide.	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
RUDYARD Sawtooth (M. Jur.) Gas (Shut-in)	6	Structural	Volumetric	640-acre spacing units consisting of one section; well location in center of NW¼ of section with 75' topographic tolerance. (Order 2-58.) Field boundaries reduced. (Order 39-76.)	None
RUNAWAY Madison (Miss.)	1	Structural	Water Drive	State-wide.	None
RUSH MOUNTAIN Winnipegosis (M. Dev.) Red River (Ord.)	1 1	Structural	Volumetric- Water Drive	State-wide. Dual zone completion in discovery well.	Excess water injected into Dakota sand. (Order 5-A-71.)
SAGE CREEK Greenhorn (Cret.) Gas (Shut-in) Blackleaf (L. Cret.) Gas (Shut-in)	1 12 3	Strat.	Depletion	640-acre spacing, one producing well per section per formation above the Kootenai to be located no closer than 990' from section line. (Order 38-77.) Amended field boundary (Order 86-79.)	None
SALT LAKE Bakken-Nisku (Miss.-Dev.)	3	Structural	Water Drive	State-wide.	None
SAND CREEK Interlake, Red River (Shut-in) (Sil.) (Ord.)	4 2	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections. Wells located in center of NW¼ and SE¼ of each quarter section. (Order 16-59.) Commingling of production from Interlake and Red River authorized per (Order 49-62.)	Excess produced water is injected into the Swift formation. (Order 9-61.)
SANDWICH Sunburst (L. Cret.) Gas Swift (U. Jur.) Gas (Shut-in)	1 1	Strat.	Depletion	320-acre spacing unit. Well: located no closer than 990' to spacing unit boundaries. (Order 17-77.)	None
SAWTOOTH MOUNTAIN Judith River (U. Cret.) Eagle (U. Cret.) (Shut-in)	8 24 4	Structural- Strat.	Volumetric Water Drive	640-acre spacing units, one well per section per formation, location to be not less than 990' from governmental section line. (Order 45-76.)	None
SCOBAY Madison (Miss.)	1	Structural	Water Drive	State-wide.	None
SECOND CREEK Red River (Ord.)	4	Structural	Volumetric Water Drive	303.1-acre spacing unit; one well field. (Order 34-78.)	None
SHEEPHERDER Tyler (L. Penn.)	3	Structural- Strat.	Unknown	State-wide.	None
SHELBY AREA Sunburst (L. Cret.) Gas Swift (Jur.) Gas Bow Island (L. Cret.) Gas	33 5	Structural- Strat.	Depletion	State-wide. Field outline not delineated. A few small Swift sand wells commingled with Sunburst.	None
SHERARO Eagle (U. Cret.) Gas (Shut-in) Judith River (U. Cret.) Dual	23 12 1	Structural- Strat.	Volumetric Water Drive	640-acre spacing units; 990' from section line. (Order 1-74.) 160-acre spacing units; (Eagle) 990' from section line, 660' from quarter section line. (Order 7-77.)	None
SHERARD WEST Eagle, Virgelle (U. Cret.) (Shut-in)	1 1	Structural- Strat.	Volumetric Water Drive	160-acre spacing units; location no closer than 660' to unit boundary. (Order 90-76.)	None
SHOTGUN CREEK Guntion (Ord.) Red River (Ord.)	1	Structural	Water Drive	State-wide.	None

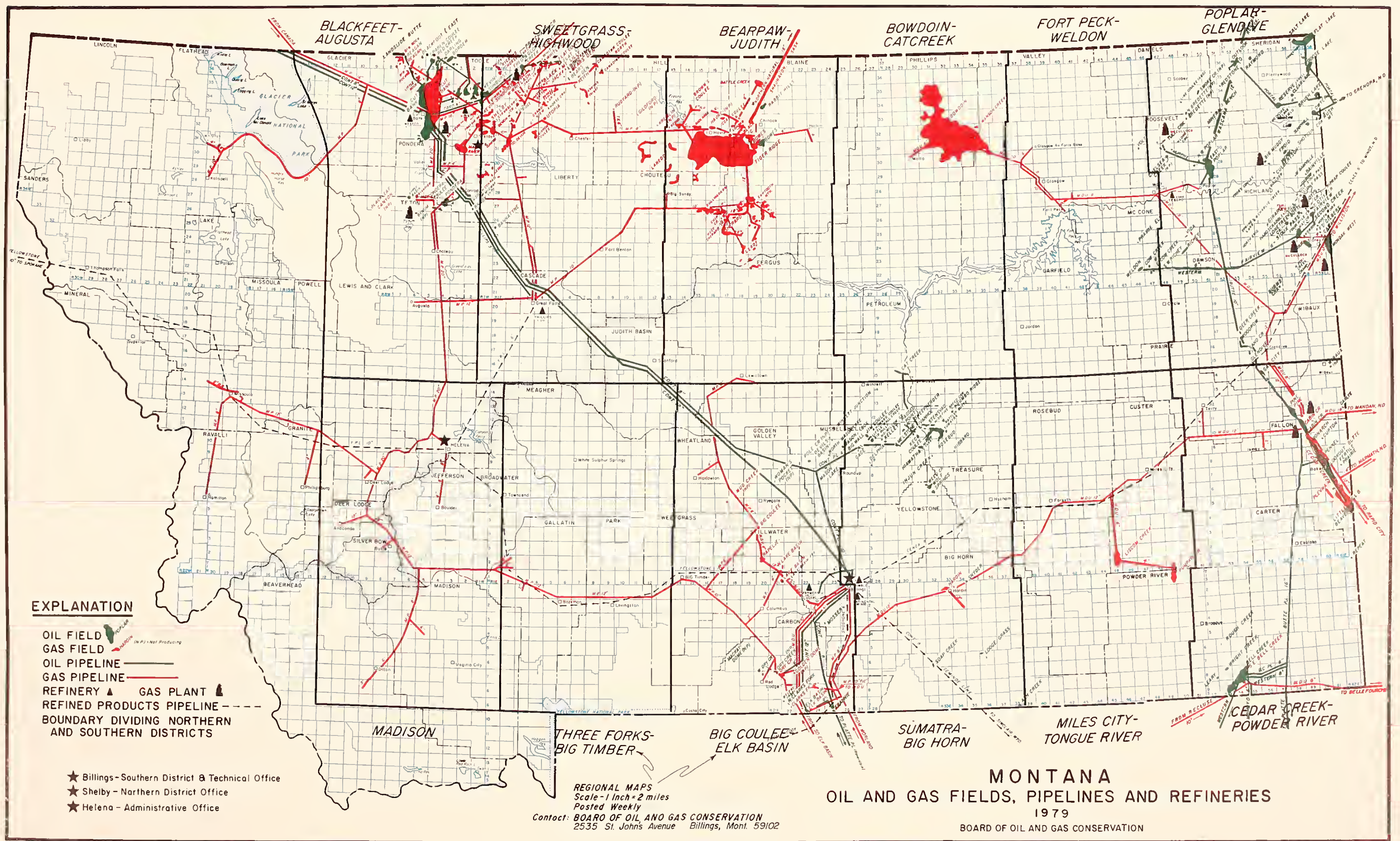
Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
SHOTGUN CREEK, NORTH Guntion (Ord.) Red River (Ord.)	1	Structural	Water Drive	320-acre spacing units consisting of two contiguous governmental quarter sections which may be in one or two sections with permitted well to be no closer than 600' to the unit exterior boundary and no closer than 1500' to any well producing from the same formation. IF NOT feasible to produce two zones separately, commingling permissible with prior administrative approval. (Order 49-77.)	None
SIDNEY Mission Canyon (Miss.)	13	Structural	Water Drive	160-acre spacing units for Madison Group. One well per spacing unit to be located no closer than 660' from unit boundary and no closer than 1650' to well producing from the same formation. (Order 5-79.)	Excess water injected into Dakota formation. (Order 41-A-78.)
SINGLETREE Red River (Ord.)	1	Structural	Volumetric	State-wide.	None
SIoux PASS Interlake (Sil.) (Dual) Red River (Ord.) Mission Canyon (Shut-in)	2 5 1 1	Structural	Volumetric Water Drive	320-acre spacing units consisting of two adjacent governmental quarter sections lying N-S or E-W at operator's option. Permitted well no closer than 660' from unit boundary. (Interlake and Red River). 160-acre spacing unit (Mission Canyon) with well no closer than 660' from unit boundary. Commingling of Interlake and Red River production authorized. (Order 10-75.) Amended field boundary. (Order 15-77.)	Excess water injected into Dakota formation. (Order 15-A-75.)
SIoux PASS, EAST Red River (Ord.)	1	Structural- Strat.	Water Drive	State-wide.	None
SIoux PASS, MIDDLE Red River (Ord.)	5	Structural	Water Drive	320-acre spacing units to consist of two contiguous governmental quarter sections at operator's option. Location to be no closer than 660' from exterior boundary of unit and no closer than 1650' from well producing from same formation. Commingling permissible with Administrative approval. (Order 55-76.)	None
SIoux PASS, NORTH Interlake (Sil.) Red River (Ord.) Dual Winnipegosis (Dev.) Nisku (Dev.) Red River (Ord.) Dual Red River (Ord.) Madison (Miss.) (Shut-in)	0 1 5 1 1	Structural	Unknown Water Drive	320-acre spacing units with well location at least 660' from unit boundary. (Order 12-75.) Field enlarged. (Order 16-75.) Commingling from Interlake and Red River approved. (Order 36-76.) Field Extension. (Order 12-77.) Orders (12-75, 16-75 and 12-79) Amended by (Order 8-79.) Field extension (Order 13-79.)	Produced water injected into Dakota-Lakota formations. (Order 34-A-75.)
SNOOSE COULEE Bow Island (L. Cret.) Gas (Shut-in)	5 1	Structural- Strat.	Volumetric	640-acre spacing units; location no closer than 990' from spacing unit boundary. Bow Island and shallower formations. (Order 18-18-77.)	None
SNOW COULEE Sunburst (L. Cret.) Gas (Shut-in)	1	Strat.	Depletion	Spacing units. E½ section 33 and W½ section 34, 36N-4E designated as spacing units. (Order 78-76.)	None
SNYDER Tensleep (Penn.) (Shut-in)	3 1	Structural	Water Drive	10-acre spacing units with center 5-spot permitted; 150' topographic tolerance. (Order 45-62.)	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
SOAP CREEK Tensleep, Amsden, Madison (Penn.) (Penn.) (Miss.) (Shut-in)	27 2	Structural	Water Drive	One well per 10-acre spacing unit per producing formation; well location in center of spacing unit with 100' topographic tolerance. (Order 26-60.)	None
SOAP CREEK, EAST Tensleep (Penn.)	3	Structural	Water Drive	State-wide.	None
SOBERUP COULEE Bow Island (L. Cret.) Gas	1	Structural	Water Drive	320-acre spacing units; well location to be no closer than 660' from the unit boundary (Order 25-79.)	None
SOUTH FORK Red River (Ord.)	3	Structural	Water Drive	State-wide.	None
SPRING LAKE Nisku (Dev.) (Shut-in) Red River (Ord.)	1 2	Structural Structural	Depletion Depletion	One well per 160-acre spacing unit. Well location anywhere within 840' square in center of spacing unit. (Order 6-63.) Field redelineation. (Orders 30-76, 49-76.)	None
SQUAW COULEE (Now included as part of Tiger Ridge Field.) (Order 10-70.)					
STRAWBERRY CREEK Bow Island (L. Cret.) Gas Sawtooth (M. Jur.)	3 1	Structural- Strat.	Volumetric Water Drive	State-wide.	None
STENSVAD Tyler (Penn.) (Shut-in)	3 11	Strat.	Depletion	40-acre spacing units; well location in center of spacing unit with 200' tolerance. (Orders 2-59, 7-60.) Wells may be drilled anywhere within waterflood unit boundary, no closer than 660' from unit boundary. (Order 5-65. Amended.)	A waterflood operation has been in progress since 1963, using Madison water. (Orders 48-67, 9-67.) Excess produced water disposed into Madison (Order 70-A-76.)
SUMATRA Tyler (Penn.) Oil & Gas (Shut-in)	95 19	Strat.	Depletion	40-acre spacing units; well located in center of unit with 75' tolerance. (Order 14-58.) Field re-delineated. (Order 14-75.) Vacuum pumps permitted on certain wells. (Order 99-79.)	Six waterflood units using Madison water. (Orders 48-67, 6-69, 19-69, 23-69, 5-75, 21-78.) Produced water disposed into Madison formation. (Order 7-A-76.)
SUNNYHILL Red River (Ord.) Oil & Gas	3	Structural	Volumetric Water Drive	320-acre spacing units; location to be no closer than 660' to the section or quarter section line which is the exterior boundary of the unit nor closer than 1650' to any well producing from same formation. (Order 39-78.)	None
SWANSON CREEK Phillips (U. Cret.) Gas (Shut-in) Bowdoin (U. Cret.) Gas	14 14	Strat.	Depletion	320-acre spacing units; (Order 36-75) amended to enlarge field and provide that spacing units may run N-S or E-W at operator's option with permitted wells to be no closer than 990' to section or quarter section line. (Order 11-78.) Field boundaries extended. (Order 32-78.) Field extension (Order 92-79.)	None
THIRTY MILE Eagle (U. Cret.) (Shut-in)	1	Structural	Unknown	State-wide.	None
THREE MILE Eagle (U. Cret.) (Shut-in)	1 2	Structural	Volumetric Water Drive	State-wide.	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
TIGER RIDGE					
Judith River (U. Cret.) Gas (Shut-in)	5 2	Structural-Strat.	Volumetric Water Drive	Field delineated; (Orders 17-67, 23-68) re-delineated and established. State-wide spacing. (Order 10-70.)	Excess produced water injected into Eagle formation. (Orders 19-A-73, 46-A-75.) (Order 19-A-73) Amended by (Order 60-A-78.)
Eagle (U. Cret.) Gas (Shut-in)	169 42	Structural Strat.	Volumetric Water Drive	State-wide for field area not unitized. Two units: wells to be located no closer than 990' from unit boundary (Orders 11-72, 41-72) 160-acre spacing units; Sections 20, 21, 22, 27, 28, 33, 34, 32N-16E (Judith River) locations to be no closer than 660' from unit boundary (Order 32-73) Enlarge and redelineate Field (Order 13-75) 160-acre spacing units in Sections 22, 23, 24, 32N-14E (Eagle & Virgelle) wells to be located no closer than 990' from section line and 660' from quarter section line (Order 37-75) 160-acre spacing units; NW¼ & NE¼ Section 30, T-31N, R-17E well to be located at least 990' from quarter section line. 75' tolerance allowed for topographic reasons (Order 51-77.) 160-acre spacing units; Sections 32, 33, 31N-17E & Section 4, 30N-17E (Eagle) to be located no closer than 990' to a section line and 660' to quarter section line. (Order 52-77.) Field enlargement (Order 46-78.) Field enlargement. (Order 48-79.) Amendment to (Orders 17-67, 23-68 and 10-70) to establish 320-acre spacing units in certain areas. (Order 79-79.)	
TIGER RIDGE NORTH					
Eagle (U. Cret.)	1	Structural	Volumetric Water Drive	160-acre spacing units; one well per horizon per spacing unit from the Virgelle formation to the surface. Well to be no closer than 990' to the section line nor closer than 660' to the interior quarter section line (Order 80-79.)	None
TIMBER CREEK					
Sunburst (L. Cret.) Gas (Shut-in)	2	Strat.	Depletion	320-acre spacing consisting of two adjacent governmental quarter sections lying N-S or E-W at operator's option. Permitted well no closer than 660' from spacing boundary and 990' from field boundary. (Order 24-75.)	None
TIMBER CREEK, WEST					
Sunburst (L. Cret.) Gas (Shut-in)	1	Strat.	Depletion	640-acre one well spacing unit. (Order 91-76.)	None
TIPPY BUTTES					
Tyler (Penn.) (Shut-in)	1	Strat.	Depletion	State-wide.	None
TRAIL CREEK					
Sunburst (L. Cret.) Gas (Shut-in)	2	Structural-	Water Drive	One well per 320 acres consisting of S½ and N½ of each governmental section but not closer than 990' from spacing boundary. (Orders 33-70, 28-76.)	None
Bow Island (L. Cret.) Gas(Shut-in)	2	Strat.	Volumetric		
TULE CREEK					
Nisku (Dev.) (Shut-in)	5 1	Structural	Water Drive	160-acre spacing units with permitted well anywhere within 1320' square in center of each unit. (Orders 26-62, 6-65, 11-67, 5-77.)	Produced water injected into Dakota and Judith River formations. (Orders 12-66, 24-67, 8-A-76.)
TULE CREEK, EAST					
Nisku (Dev.) (Shut-in)	1 1	Structural	Water Drive	160-acre spacing units with permitted well anywhere within 1320' square in center of each unit. (Orders 40-64, 6-65.)	Water injected into Judith River formation. (Order 13-68.) Water injected into Nisku formation. (Order 28-A-79.)
TULE CREEK, SOUTH					
Nisku (Dev.)	3	Structural	Water Drive	160-acre spacing units with permitted well anywhere within a 1320' square in center of each unit.	Authority given to dispose of produced water into Dakota. (Order 44-64.) Into Judith River formation. (Order 29-67.)

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal	
UTOPIA SWIFT						
Sawtooth (Jur.) Gas	2	Structural	Depletion	40-acre spacing units; location to be in center of quarter-quarter section with no more than 100' topographic tolerance. (Order 9-78.)	None	
(Shut-in)	5		Water Drive			
Swift (U. Jur.) Oil	13	Structural	Water Drive			
VAUX						
Red River (Ord.)	6	Structural	Water Drive	State-wide.	Produced water injected into the Dakota formation. (Order 44-A-79.)	
Mission Canyon (Miss.)	8					
(Shut-in)	1					
VIDA						
Interlake (Sil.)	1	Structural	Water Drive	160-acre spacing units with permitted well anywhere within an 840' square in center of each unit. (Order 39-63.) Field Area reduction. (Order 79-76.)	Water injected into Lakota formation. (Order 14-68.)	
(Shut-in)	1					
VIKING						
Dawson Bay (Dev.)	1	Structural-Strat.	Water Drive	320-acre spacing units, designated; to be located no closer than 660' to the unit exterior boundary and no closer than 1500' to any well producing from the same formation. If not feasible to produce two zones separately, commingling permissible with prior administrative approval. (Order 50-77.)	None	
(Shut-in)						
Winnipegosis						
VOLT						
Nisku (Dev.)	5	Structural	Water Drive	160-acre spacing units with permitted well anywhere within a 1320' square in center of each unit. (Orders 27-64, 6-65, 32-65.) State-wide.	Excess produced water is disposed into Judith River. (Orders 3-65, 37-A-74.)	
(Shut-in)	1					
Charles "C" (Miss.)	1	Structural	Water Drive			
WAGON BOX						
Tyler (Penn.)	1	Structural-Strat.	Unknown	State-wide.	None	
(Shut-in)	1					
WEED CREEK						
Amsden (Penn.)	1	Structural	Water Drive	State-wide.	None	
WELDON						
Kibbey (Miss.)	3	Structural	Partial Water Drive	80-acre spacing unit; each quarter section divided into two separate units running in either a north-south or east-west direction; well location in center of NE¼ and SW¼ of quarter section with 200' topographic tolerance. (Order 9-65.)	Excess produced water is disposed into the Dakota, Lakota, Morrison and Charles formations. (Orders 31-65, 47-65, 37-66, 16-67.)	
(Shut-in)	1					
WEST BUTTE						
Sunburst (L. Cret.) Oil	1	Structural-Strat.	Depletion	State-wide, except W½ Section 16 is considered a single spacing unit.	None	
(Shut-in)						
Bow Island (L. Cret.) Gas	1			Sawtooth-Madison gas commingled, unitized (Order 5-72.) No well closer than 330' from unit boundary.		
(Shut-in)						
Sawtooth (Jur.) Gas	3	Structural	Water Drive			
Madison (Miss.) Gas	1					
WEST BUTTE SHALLOW GAS						
Bow Island (L. Cret.)	1	Structural-Strat.	Volumetric	160-acre spacing units; with one well to be permitted to produce from each individual gas producing formation above the top of the Kootenai to the surface within each 160-acre spacing unit. Well locations to be anywhere within the spacing unit but not closer than 990' feet from the spacing unit boundaries. (Order 39-77.)	None	
(Shut-in)						
WEST REAGAN						
(See Reagan, West)						
WHIPSTOCK						
Red River (Ord.)	1	Structural	Water Drive	State-wide.	None	

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary or Water Disposal
WHITLASH					
Bow Island, Kootenai, Swift Oil	73	Structural- Strat.	Volumetric	Gas: 300' from legal subdivision line and 2400' between wells, 75' topographic tolerance. Oil: 330' from legal subdivision line and 650' between wells; 5-spot location at center of 40-acre tract permitted; 75' topographic tolerance. General Rules 207, 211, 219, 221, 223, and 224 suspended. (Orders 16-54, 27-70.)	None
(Cret.) (Jur.) (Shut-in)	16				
Gas	39				
(Shut-in)	4				
Madison (Miss.) Gas	1				
WHITLASH, WEST					
Sunburst, Swift (Shut-in) Oil	1	Structural- Strat.	Volumetric	Gas: 160-acre spacing units consisting of quarter sections; well location anywhere within a 660' square in center of spacing unit. Oil: 330' from legal subdivision line, 650' between wells in same reservoir on same lease; 5-spot location permitted. (Orders 61-62, 22-65 as amended.) (Order 61-62) Amended by (Order 48-77.) Field extension. (Order 18-79)	None
(Cret.) (Jur.) Gas	7				
(Shut-in)	2				
Sawtooth (Jur.) (Shut-in)	1				
WILLIAMS					
Bow Island (L. Cret.) Gas	6	Structural	Volumetric	640-acre spacing unit; well to be located no closer than 990' to exterior boundary for all formations above the Kootenai (Order 49-79.) Amendment enlarging field boundary (Order 102-79.)	None
WILLOW CREEK, NORTH					
Tyler (Penn.) Oil	3	Structural- Strat.	Depletion Water Drive	State-wide.	Pilotflood. (Order 19-72.)
WILLOW RIDGE					
Bow Island (L. Cret.) Gas	8	Structural- Strat.	Volumetric	640-acre spacing units; location to be no closer than 990' to unit boundary for gas production from all formations to the top of the Kootenai. (Order 29-78.) 40-acre spacing units with permitted 5 wells; well may be located in the center of each 10 acre quarter, quarter, quarter section and one in the center of each 40-acre subdivision with a 75' topographic tolerance allowed. (Order 30-78.)	None
(Shut-in)	2				
Burwash (Cret.) Oil	3				
WILLS CREEK, SOUTH					
Interlake (Sil.)	3	Structural	Partial Water Drive	160-acre spacing units. Well location in center of SE¼ of each unit with 175' topographic tolerance. (Orders 5-64, 30-66.)	Waterflood initiated 12-1-73. (Order 23-73.)
WINNETT JUNCTION					
Tyler (Penn.)	6	Strat.	Depletion Water Drive	20-acre spacing units. Units to be designated as W½ and E½ of quarter-quarter section, no closer than 120' to the boundary of a spacing unit. (Order 57-76.) Certain lands bound by (Order 57-76) vacated by (Order 41-77.)	A waterflood operation commenced October 1, 1977 into Tyler formation. (Order 41-77.)
WOLF SPRINGS					
Amsden (Penn.)	4	Structural	Water Drive	80-acre spacing units consisting of N½ and S½ of each quarter section. Well location in center of NW¼ and SE¼ of each quarter section with 75' topographic tolerance. (Orders 4-56, 9-59.) Field Area reduction (Order 92-76.)	None
(Shut-in)	1				
WOODROW					
Charles, (Miss.) Duperow, (Dev.)	1	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections; well locations in center of NE¼ and SW¼ of each quarter section with 200' topographic tolerance. (Order 47-62.)	Produced water injected into Dakota. (Order 48-62.)
Interlake (Sil.)					
Red River (Ord.)	1				
(Shut-in)	1				
WRANGLER					
Red River (Ord.)	2	Structural	Water Drive	State-wide.	None
WRANGLER, NORTH					
Red River (Ord.)	1	Structural	Water Drive	State-wide.	None
WRIGHT CREEK					
Muddy (L. Cret.)	3	Structural- Strat.	Depletion Water Drive	80-acre spacing consisting of N½ and S½ of quarter section with locations in NW¼ and SE¼ of each quarter section with 200' tolerance. Field Area reduction (Order 69-76.)	Excess produced water is disposed of into the Muddy formation. (Order 8-A-77.)
(Shut-in)	1				



EXPLANATION

- OIL FIELD
- GAS FIELD
- OIL PIPELINE
- GAS PIPELINE
- REFINERY
- GAS PLANT
- REFINED PRODUCTS PIPELINE
- BOUNDARY DIVIDING NORTHERN AND SOUTHERN DISTRICTS

- ★ Billings - Southern District & Technical Office
- ★ Shelby - Northern District Office
- ★ Helena - Administrative Office

REGIONAL MAPS
Scale - 1 inch = 2 miles
Posted Weekly
Contact: BOARD OF OIL AND GAS CONSERVATION
2535 St. John's Avenue Billings, Mont. 59102

MONTANA
OIL AND GAS FIELDS, PIPELINES AND REFINERIES
1979
BOARD OF OIL AND GAS CONSERVATION

STATE OF MONTANA - SUMMARY OF PRODUCING OIL FIELDS - 1979

MONTANA BOARD OF OIL AND GAS CONSERVATION

LINE NO.	FIELD	COUNTY	PRODUCING FORMATION	YEAR OF DISCOVERY	DEPTH	GRAVITY ° API	E. V. F.	NET PAY FT.	PORO-SITY (%)	S _w (%)	O.O.I.P. (BBL/ACRE)	AREA 1-1-80 (ACRES)	O.O.I.P. (M BBL.)	RECOVERY FACTOR (%)		ULTIMATE RECOVERY (M BBL.)			CUMULATIVE PRODUCTION 1-1-80 (M BBL.)	RESERVES 1-1-80 (M BBL.)	1979 PRODUCTION (BBL.)		ULTIMATE RECOVERY (BBL/ACRE)		LINE NO.
														PRIMARY	SECONDARY	PRIMARY	SECONDARY	TOTAL			(BBL/ACRE)	(BBL/ACRE)	(BOPO)	(BBL/ACRE)	
1	Anvil	Roosevelt	Red River (Ord.)	1978	12,600	47	1.63	26	14	32	11,780	320	3,770	19	--	700	--	700	142	558	142,331	390	2,190	84	1
2	Ash Creek	Big Horn	Shannon (Cret.)	1952	4,500	34	1.05	14	22	42	13,200	200	2,640	25	7	660	180	840	775	65	8,272	23	4,200	300	2
3	Bainville, North	Roosevelt	Winnepegosis	1979	11,600	45	1.60	35	7	20	9,500	960	9,120	15	--	1,380	--	1,380	47	1,333	46,638	311	1,440	41	3
4	Bainville, West	Roosevelt	Red River (Ord.)	1978	8,500	34	1.50	12	6	45	2,050	320	670	12	--	80	--	80	20	60	7,914	22	250	21	4
5	Bears Den	Liberty	Sunburst (Cret.)	1924	2,300	39	1.08	20	12	35	11,210	240	2,690	22	--	600	--	600	545	55	10,628	29	2,500	125	5
6	Bell Creek	Powder River	Muddy (Cret.)	1967	4,400	36	1.11	10	26	23	13,990	17,440	243,990	26	28	64,000	68,000	132,000	108,245	23,755	5,676,329	15,552	7,570	757	6
7	Benrud East	Roosevelt	Nisku (Dev.)	1962	7,500	46	1.37	22	15	30	13,080	480	6,280	36	--	2,440	--	2,440	2,330	110	88,511	242	5,080	231	7
8	Benrud, N.E.	Roosevelt	Nisku (Dev.)	1964	7,400	46	1.40	23	16	30	14,270	160	2,280	43	--	980	--	980	892	88	11,612	32	6,130	267	8
9	Big Cully	Musselshell	Tyler (Penn.)	1976	3,800	30	1.25	11	16	30	7,650	120	920	22	--	200	--	200	88	112	10,219	28	1,670	152	9
10	Big Muddy Creek	Roosevelt	Red River (Ord.)	1975	11,900	48	1.72	11	14	36	4,450	1,280	5,700	22	--	1,260	--	1,260	818	442	49,943	137	980	89	10
11	Big Wall	Musselshell	Amsden (Penn.)	1953	2,500	19	1.01	17	16	35	13,580	280	3,800	24	--	930	--	930	779	151	17,751	49	3,320	195	11
12	Big Wall	Musselshell	Tyler (Penn.)	1948	3,000	31	1.02	22	17	40	17,070	1,220	20,830	29	2	6,050	500	6,550	6,133	417	95,034	260	5,370	244	12
13	Blackfoot	Glacier	Cut Bank (Cret.)	1955	3,500	30	1.11	15	15	35	10,220	160	1,640	36	--	1,360	--	1,360	1,119	241	17,850	49	2,130	93	13
14	Blackfoot	Glacier	Madison (Miss.)	1955	3,600	25	1.15	8	14	40	4,530	480	2,170												14
15	Blue Hill	Richland	Red River (Ord.)	1977	12,600	48	1.35	32	10	60	7,360	640	4,710	7	--	330	--	330	100	230	27,151	74	520	16	15
16	Boulder	Richland	Ouperow (Dev.)	1976	10,400	46	2.30	11	22	16	6,860	160	1,100	14	--	150	--	150	115	35	9,113	25	940	85	16
17	Bowes	Blaine	Sawtooth (Jur.)	1949	3,300	19	1.02	37	12	31	23,300	3,760	87,600	8	3	7,200	2,450	9,650	8,482	1,168	129,403	355	2,570	69	17
18	Bradley	Glacier	Sunburst (Cret.)	1959	3,500	26	1.25	6	11	49	2,090	240	500	44	--	150	--	150	109	41	6,875	19	938	156	18
19	Breed Creek	Rosebud	Tyler (Penn.)	1976	4,900	32	1.15	20	15	37	12,750	200	2,550	41	--	1,050	--	1,050	353	697	100,591	276	5,250	263	19
20	Brorson	Richland	Madison (Miss.)	1954	9,600	32	1.40	40	5	40	6,650	1,280	8,150	13	--	1,060	--	1,060	869	191	37,479	103	830	21	20
21	Brorson	Richland	Red River (Ord.)	1968	12,600	48	1.70	20	10	35	5,930	960	5,690	35	--	2,030	--	2,030	1,944	86	23,682	65	2,110	106	21
22	Brorson South	Richland	Red River (Ord.)	1968	12,600	48	1.70	20	12	30	7,670	960	7,360	26	--	1,900	--	1,900	1,178	722	77,881	213	1,980	99	22
23	Brush Lake	Sheridan	Red River (Ord.)	1969	11,400	40	1.50	30	14	35	14,120	2,240	31,630	8	--	2,620	--	2,620	1,929	691	78,675	216	1,170	39	23
24	Burns Creek	Dawson	Red River (Ord.)	1972	11,400	39	1.25	14	14	40	7,300	640	4,670	6	--	270	--	270	170	100	13,487	37	420	30	24
25	Cabin Creek	Fallon	Madison (Miss.)	1956	7,300	33	1.13	25	11	30	13,220	2,260	26,880	55	--	14,820	--	14,820	14,007	813	155,896	427	6,560	262	25
26	Cabin Creek	Fallon	Siluro-Ordovician	1953	9,000	33	1.20	50	13	30	29,420	7,620	224,180	23	11	51,000	25,450	76,450	61,961	14,489	1,448,836	3,969	10,030	201	26
27	Canal	Richland	Red River (Ord.)	1970	12,700	47	2.07	58	8	40	10,430	320	3,340	18	--	590	--	590	511	79	16,895	46	1,840	32	27
28	Canal	Richland	Madison (Miss.)	1977	9,200	33	1.30	47	2	41	3,310	160	530	25	--	130	--	130	25	105	11,092	30	810	17	28
29	Carlyle	Wibaux	Red River (Ord.)	1978	10,700	37	1.30	12	12	27	6,270	320	2,010	12	--	370	--	370	82	288	53,401	146	1,160	97	29
30	Cat Creek (Ant-Mos)	Carfield	Kootenai (Cret.)	1920	1,200	52	1.10	10	21	19	12,000	200	2,400	21	8	500	200	700	5,207	393	42,551	117	3,500	350	30
31	Cat Creek	Petro. & Garf.	Morrison (Jur.)	1945	1,600	52	1.10	6	22	40	5,590	240	1,340	30	--	400	--	400							31
32	Cat Creek	"	Ellis (Jur.)	1945	1,700	52	1.10	25	18	40	19,040	880	16,760	26	1	4,400	100	4,500	17,558	342	43,419	119	19,890	390	32
33	Cat Creek (W.Dome)	Petroleum	Kootenai (Cret.)	1920	1,100	52	1.10	51	21	19	61,180	900	55,060	27	6	14,600	3,300	17,900							33
34	Cat Creek	Petroleum	Amsden (Penn.)	1967	2,000	52	1.00	10	8	30	4,340	80	350	17	11	60	40	100	79	21	3,020	8	1,250	125	34

LINE NO.	FIELD	COUNTY	PRODUCING FORMATION	YEAR OF DISCOVERY	DEPTH	GRAVITY API	F. V. R.	NET PAY FT.	POROSITY (%)	S _w (%)	O.O.I.P. (BBL/ACRE)	PRODUCTIVE AREA		RECOVERY FACTOR (%)		ULTIMATE RECOVERY (M BBL.)			CUMULATIVE PRODUCTION 1-1-80 (M BBL.)	RESERVES 1-1-80 (M BBL.)	1979 PRODUCTION (BBL.)		ULTIMATE RECOVERY (BBL./ACRE)		LINE NO.						
												1-1-80 (ACRES)	O.O.I.P. (M BBL.)	PRIMARY	SECONDARY	PRIMARY	SECONDARY	TOTAL			(BBL.)	(BOPD)	(BBL./ACRE)	(BBL./ACRE/FT.)							
101	Medicine Lake	Sheridan	Red River (Ord.)	1979	11,700	44	1.78	32	17	31	16,360	1,600	26,180	15	--	4,000	--	4,000	233	3,767	232,681	637	2,500	78	101						
102	Melstone	Musselshell	Tyler (Penn.)	1948	4,400	34	1.09	25	15	30	18,680	680	17,700	28	--	3,500	--	3,500	2,314	1,186	138,068	378	5,150	206	102						
103	Monarch	Fallon	Silurian-Ordovician	1958	8,400	32	1.10	31	7	35	9,950	2,240	22,290	26	5	4,900	500	5,400	4,070	1,330	123,386	338	2,410	78	103						
104	MonDak West	Richland	Madison (Miss.)	1976	19,200	30	1.30	100	4	60	9,550	9,600	91,680	11	--	9,630	--	9,630	1,228	8,402	751,643	2,059	1,000	10	104						
105	MonDak West	Richland	Red River (Ord.)	1976	12,200	48	1.64	45	10	43	12,130	1,600	19,410	15	--	3,000	--	3,000	908	2,092	417,153	1,143	1,880	42	105						
106	Nohly	Richland	Red River (Ord.)	1972	12,900	46	1.43	27	10	40	8,790	640	5,630	21	--	1,200	--	1,200	895	305	61,709	169	1,880	70	106						
107	North Fork	Richland	Red River (Ord.)	1976	12,700	46	1.50	12	14	57	7,340	320	2,350	13	--	300	--	300	100	200	20,916	57	940	78	107						
108	North Fork	Richland	Madison (Miss.)	1977	9,500	38						160		--	--	250	--	250	58	194	17,606	48	1,560	--	108						
109	Oils Creek	Richland	Red River (Ord.)	1970	12,700	48	1.76	23	12	35	7,820	1,280	10,010	8	--	800	--	800	567	233	34,695	95	630	27	109						
110	Outlook	Sheridan	Silurian-Devonian	1956	9,000	38	1.12	20	8	30	7,760	1,600	12,420	46	--	5,700	--	5,700	5,501	199	37,439	103	3,560	178	110						
111	Outlook	Sheridan	Duperow (Dev.)	1964	8,200	39	1.50	15	10	25	5,820	640	3,720	40	--	1,500	--	1,500	1,264	236	69,506	190	2,340	156	111						
112	Outlook	Sheridan	Winnepegosis (Dev.)	1971	9,000	39	1.12	18	8	30	6,980	480	3,350	24	--	800	--	800	562	238	29,966	82	1,670	93	112						
113	Outlook South	Sheridan	Winnepegosis (Dev.)	1957	9,100	39	1.12	18	8	30	6,980	480	3,350	12	--	400	--	400	347	53	6,521	18	830	46	113						
114	Outlook West	Sheridan	Winnepegosis (Dev.)	1958	9,100	39	1.12	16	8	30	6,210	320	1,990	28	--	560	--	560	548	12	3,022	8	1,750	109	114						
115	Oxbow	Roosevelt	Red River (Ord.)	1978	12,600	47	1.50	18	12	45	6,140	320	1,960	26	--	500	--	500	86	414	56,977	156	1,560	87	115						
116	Pelican	Sheridan	Red River (Ord.)	1979	11,400	47	1.80	19	6	25	3,690	320	1,180	13	--	150	--	150	15	135	14,910	41	470	25	116						
117	Pennel	Fallon	Silurian-Ordovician	1955	8,800	33	1.14	25	11	35	12,160	22,380	272,140	11	9	31,000	25,600	58,000	43,743	14,257	3,056,679	8,374	2,530	230	117						
118	Pennel	Fallon	Mission Canyon (Miss.)	1955	7,000	31	1.10	38	3	30	5,630	720	4,050	17	--	700	--						700						970	26	118
119	Pennel	Fallon	Lodgepole (Miss.)	1960	7,500	36	1.13	30	8	35	10,710	320	3,430	20	--	700	--						700						2,190	73	119
120	Phantom	Toole	Sunburst (Cret.)	1976	2,700	38	1.09	12	20	35	16,010	160	2,560	12	--	300	--	300	44	256	24,575	67	1,880	157	120						
121	Pine	Fal., Pra., Daw., Wib.	Silurian-Ordovician	1952	8,400	34	1.17	32	12	30	17,820	13,320	237,000	24	20	57,000	48,000	105,000	89,966	15,034	2,140,881	5,865	7,880	246	121						
122	Pondera	Pondera	Madison (Miss.)	1927	2,100	34	1.20	15	16	31	10,710	5,560	59,550	44	--	26,000	--	26,000	21,435	4,565	279,025	764	4,680	312	122						
123	Poplar East	Roosevelt	Madison (Miss.)	1952	5,500	40	1.10	25	11	30	13,580	18,070	245,390	18	--	45,000	--	45,000	42,783	2,217	239,034	655	2,490	100	123						
124	Poplar East	Roosevelt	Ileath (Penn.)	1969	4,900	38	1.10	8	11	50	3,100	480	1,490	22	--	330	--	330	241	59	4,923	13	690	86	124						
125	Poplar East	Roosevelt	Nisku (Dev.)	1969	7,300	42	1.40	12	8	50	2,660	320	850	27	--	230	--	230	211	19	5,437	15	720	60	125						
126	Poplar, N.W.	Roosevelt	Madison (Miss.)	1952	6,300	40	1.10	16	10	45	6,210	1,680	10,430	17	--	1,800	--	1,800	1,153	647	119,189	327	1,070	67	126						
127	Putnam	Richland	Silurian-Ordovician	1969	11,900	41	1.75	16	9	30	4,470	3,200	14,300	35	--	5,000	--	5,000	1,101	3,899	422,746	1,158	1,560	98	127						
128	Putnam	Richland	Madison (Miss.)	1978	9,500	34	1.42	92	6	35	19,600	320	6,270	4	--	250	--	250	39	211	23,027	63	780	9	128						
129	Rabbit Hills	Blaine	Sawtooth (Jur.)	1972	4,000	21	1.15	12	18	16	12,240	800	9,790	8	--	800	--	800	404	396	46,713	128	1,000	83	129						
130	Ragged Point	Musselshell	Tyler (Penn.)	1956	3,600	32	1.11	13	14	32	8,650	1,360	11,760	26	7	3,000	800	3,800	2,612	1,188	52,462	144	2,790	215	130						
131	Rattler Butte	Rosebud	Tyler (Penn.)	1975	5,300	32	1.10	28	18	45	19,550	80	1,560	19	--	300	--	300	100	200	18,429	50	3,750	134	131						
132	Raymond	Sheridan	Nisku (Dev.)	1972	7,900	50	1.40	22																							

GENERALIZED STRATIGRAPHIC CORRELATION CHART

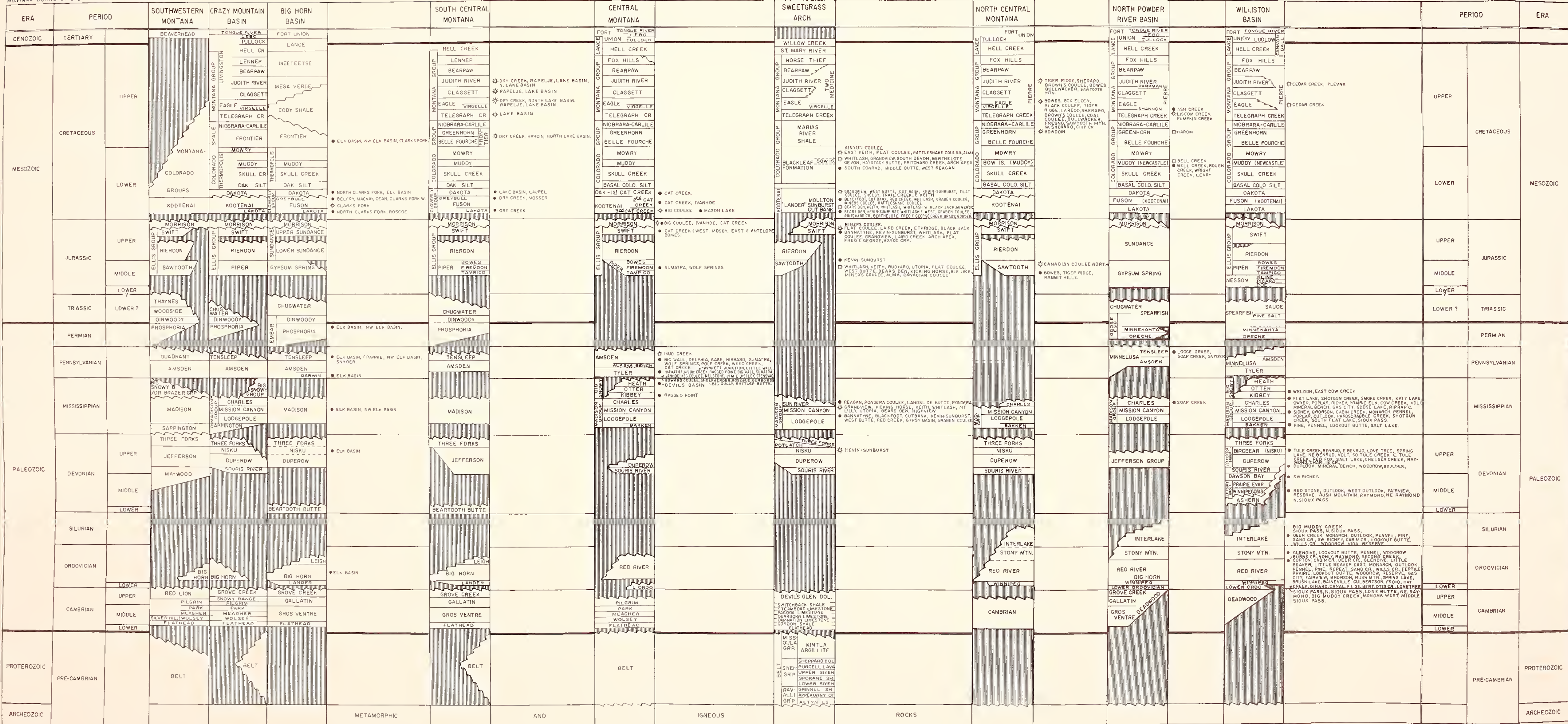
SHOWING PRODUCTIVE FORMATIONS IN MONTANA OIL AND GAS FIELDS *

• OIL • GAS
1979

MONTANA BOARD OF OIL AND GAS CONSERVATION

CHARLES G. MAIO, GEOLOGIST

JUDSON D. SWEET, PETROLEUM ENGINEER



* SOME FIELDS SHOWN ARE DEPLETED OR NO LONGER PRODUCTIVE.



1,750 copies of this public document were published at an estimated cost of \$1.47 per copy, for a total cost of \$2,566.00 which includes \$2,050.00 for printing and \$516.00 for distribution.